

**RISK FACTORS AND PSYCHOLOGICAL OUTCOMES OF SCHOOL
BULLYING AMONG ADOLESCENTS IN GHANA**

BY

BEATRICE DWUMFOUR WILLIAMS

(10199975)



**THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN
PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF
MASTER OF PHILOSOPHY CLINICAL PSYCHOLOGY DEGREE**

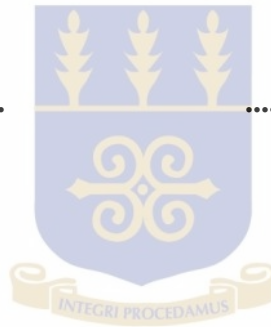
JUNE, 2013

DECLARATION

The thesis Risk Factors and Psychological Outcomes of School Bullying among Adolescents in Ghana is a study submitted to the Department of Psychology for the award Master of Philosophy (MPhil) in Psychology. I hereby declare that this research is conducted by Beatrice Dwumfour Williams under the supervision of Dr. A. Anum and Dr. R. Akuamoah Boateng. This work has never been submitted to any other institution by anyone for any award. All references cited in this work have been duly acknowledged and I take full responsibility for any shortcomings in relation to this work.

.....
Beatrice Dwumfour Williams

(10199975)



.....
Date

.....
Dr. A. Anum

(Principal Supervisor)

.....
Date

.....
Dr. R. Akuamoah Boateng

(Co-Supervisor)

.....
Date

DEDICATION

This dissertation is dedicated with gratitude and affection to my husband (Mr. Charles Dwumfour Williams) and my adorable sons (Melchizedek K. A. Dwumfour Williams and Charles K. S. Dwumfour Williams Jr.) and to my family, Rev. Ramson Asante Darteh (Dad), Ps. Mrs. Florence Asante Darteh (Mum) Blessing Asante Darteh (sister) and Ivy Asante Darteh (sister) for their motivation and support, and to all Ghanaian Adolescents Students. God bless.



ACKNOWLEDGEMENT

I am indeed most grateful and forever indebted to the Almighty God for His grace and divine guidance throughout this work.

This work would not have been completed but for the constant and diligent supervisions of Dr. A. Anum and Dr. R. Akuamoah Boateng. I say, thank you for your resourceful and constructive directions, suggestions and advice that have immensely enriched my knowledge and understanding in the field of social science research.

Again, this work would not have been completed without the sponsorship of Galaxy Oil Ghana Limited. I also would like to thank Dr. Angela Ofori-Atta (UGMS), Prof. C.C. Mate-Kole (Dept. of Psychology, UG) for their support and guidance

I express my appreciation to Mr. Appiah-Twum (Assistant Headmaster, Labone Secondary School), Mr. Asare (Headmaster, Accra Academy), Ms. Cecilia Kaya, Mr. Angel Carbonu, Mr. Aggrey, Mr. Segbefia and Ms. Nyame (St. Mary's Senior High School) and Mrs. Abena Adukpo (Head, Grace Preparatory and Junior High School) for their understanding, permission and access to their respective schools and students.

I thank my Husband, Mr. Charles Dwumfour Williams and Sons, Mel and Sarkodie for their understanding and support. I also appreciate the support of my family. I also acknowledge Mr. Thomas Akoensi, Mr. Francis Annor, Mr. Emmanuel Dziwornu, Mr. Daniel Ahorsu, Ms. Yvonne Otchere, Mr. Seth Mawusi Asafo, Ms. Clarise Brown, Nandy Ntiamoah Walker, Ivy Asante Darteh (Maame), Blessing Asante Darteh (Naana), Stella Nartey, Salim Nelson and Gabriel Tetteh for their support throughout this project.

I also wish to specially appreciate the wonderful commitment exhibited by all the participants (especially students from Accra Academy, St. Mary's Senior High School and Grace Junior High School) in this work. Truly, without your responses, this work would not have been completed.

All of you provided help in different areas, which in combination allowed for the completion of this thesis project. We made a great team!



Abstract

Building on current knowledge, the primary aim of this study was to examine the association between self reported bullying and victimisation behaviour and risk factors such as sensation seeking, and emotional intelligence after controlling for self esteem, parental attachment, age and gender. The study also examined how bullying and victimisation influence depression and suicidal ideations. Self-report questionnaires were administered to three hundred and fifty five (355) adolescent students who were conveniently and randomly sampled from selected Junior High and Senior High Schools respectively in Accra.

Hierarchical regression was used to analyse and test the hypothesis formulated in the study. The results obtained showed that sensation seeking and emotional intelligence significantly predicted bullying perpetration after controlling for age, gender, parental attachment and self-esteem. Sensation seeking contributed significantly, though modestly, to variance explained in victimisation behaviour; however, emotional intelligence did not significantly predict victimisation behaviour after controlling for age, gender, parental attachment and self-esteem. Bullying and victimisation behaviour were not found to predict depression and suicide ideations after controlling for age, gender, parental attachment, sensation seeking, emotional intelligence and self-esteem. These findings can inform school-based intervention with perpetrators and victims of bullying.

Keywords: bullying, victimisation, parental attachment, sensation seeking, emotional intelligence, self-esteem, depression, suicidal ideations

Table of Contents

Declaration	ii
Dedication	iii
Acknowledgement.....	iv
Abstract.....	vi
Table of Contents	vii
List of tables.....	x
List of Abbreviations	xi
Chapter One	1
Background	1
Risk factors	4
Psychological outcomes	8
Problem Statement	10
Aims and Objectives of the study	10
Significance of the Study	12
Chapter Two.....	13
Literature Review	13
Introduction	13
Theoretical Framework	14
Theory of mind theory (Premack and Woodruff,1978)	14
Sensation seeking theory (Zuckerman, 1979).....	16
Review of Related Studies	20
Evidence of Parental attachment and Bullying behaviour (perpetration and victimisation). ..	20
Evidence of Sensation seeking and Bullying behaviour (perpetration and victimisation)....	23
Evidence of Emotional intelligence and Bullying behaviour (perpetration and victimisation)	27
Evidence of Self esteem and Bullying behaviour (perpetration and victimisation)	32
Evidence of Bullying behaviour (perpetration and victimisation) and Depression.....	38
Evidence of Bullying behaviour (perpetration and victimisation) and Suicidal ideation.....	38

Summary of Related Studies	46
Rationale of the Study	50
Hypotheses	52
Conceptual Framework	53
Operational Definition of Terms	53
Chapter Three	55
Methodology	55
Research Setting.....	55
Participants	55
Sampling procedure.....	56
Inclusive criteria	57
Exclusive criteria	57
Sample size and power	57
Research Design.....	60
Measures/Instruments.....	60
Demographic data	60
Risk factor Questionnaires	62
Psychological outcomes	65
Procedure.....	66
Chapter Four	70
Results.....	70
Introduction	70
Hypothesis Testing.....	73
Summary of Research Results.....	86
Chapter Five.....	87
Discussion Of Results	87
Conceptual framework based on current results	99
Implication for Research,Theory, Practice and Policy.....	100
Suggestions for Future Research.....	104
Limitations of the study.....	106
Conclusion.....	107

References	109
Appendices	134
Appendix A	134
Appendix B	135
Appendix C	137
Appendix D	140
Appendix E.....	143
Appendix F.....	155
Appendix G.....	155
Appendix H.....	156
Appendix I.....	157

List of Tables and Figures

Table 1: Demographic characteristics of participants (N=355).....596

Table 2: Descriptive Statistics of Continuous Variables in the Study and Alpha coefficients of Key Study Variables.....710

Table 3: Pearson-Product Moment correlations between the study variables (n=355) 721

Table 4: Summary of Hierarchical Multiple Regression for Hypothesis One.....75

Table 5: Summary of Hierarchical Multiple Regression for Hypothesis Two.....77

Table 6: Summary of Hierarchical Multiple Regression for Hypothesis Three..... 79

Table 7: Summary of Hierarchical Multiple Regression for Hypothesis Four..... 81

Table 8: Summary of Hierarchical Multiple Regression for Hypothesis Five.....82

Table 9: Summary of Hierarchical Multiple Regression for Hypothesis Six.....85

Figures

Figure 1.1 Conceptual framework 53

Figure 1.2 Conceptual framework based on current results.....99

List of Abbreviations

AAQ	Adolescent Attachment Questionnaire
ECR-R	Experiences in Close Relationships Questionnaire – Revised
EI	Emotional Intelligence
EIQ	Emotional Intelligence Questionnaire
EQ-i: YV	Emotional Quotient Inventory: Youth Version
GSHS	Global School-based Student Health Survey
IAS – A	Indirect Aggression Scale for Aggressors
JHS	Junior High School
MAO	Monoamine oxidase
PRQ	Peer Relations Questionnaire
SDQ	Strengths and Difficulties Questionnaire
SES	Socioeconomic Status
SHS	Senior High School
SLT	Social Learning Theory
SPPC	Self-Perception Profile for Children
SSS	Sensation Seeking Scale
SUEIT	Swinburne University Emotional Intelligence Test
UG	University of Ghana
UGMS	University of Ghana Medical School
UNICEF	United Nations Children's Fund
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNAIDS	Joint United Nations Programme on HIV/AIDS

ZKPQ

Zuckerman-Kuhlman Personality Questionnaire

Chapter One

Bullying: Risk Factors and Psychological Outcomes among Adolescents in Ghana

“It is a fundamental democratic right for a child to feel safe in school and to be spared the oppression and repeated, intentional humiliation implied in bullying.” [Olweus, 1999, p 21]

Background of Study

Bullying among school children has been found to be a significant global problem (Smith & Brain, 2000) with serious psychological and general well-being implications for victims of bullying as well as bullies themselves (Swearer, Spillage, Vaillancourt & Hymel, 2010). The international prevalence of bullying among adolescent students is reported to range from about 9% to 54% (Kim, Koh & Leventhal, 2004). Indeed, a growing amount of research within the last few years have reiterated the noxious concomitant and long lasting consequences of school bullying (Gini & Pozzoli, 2009). Owing to these, researchers continuously explore potential risk or predicting factors that may in more ways than one predispose a child to engaging in bullying (Duncan, 2011).

Generally, it is thought that any act of aggression constitutes bullying; more so, it has also been defined in the literature as a subset of aggressive behaviour (Land, 2003). Bullying however is quite different from aggression. In that, whereas aggression may involve a singular action by individuals or groups against each other and tends to be time bound (Feshbach & Zagrodzka, 1997), bullying is characteristically repetitive in nature; it continues for extended periods of time (Rigby, 2001). A pioneer and one of the most influential researchers on the subject of bullying defined bullying as involving repeated exposure over time to negative actions on the part of one or more other students (Olweus, 1999). This negative action must be deliberate and carried out with the intent of causing harm to the victim (Farrington, 2009).

A physical or psychological imbalance of power, either actual or supposed, is also crucial in the definition of bullying (Rigby, 1996; Hoover & Oliver, 1996). This imbalance of power might, but does not necessarily, include physical strength of the bully (Juvonen & Ho, 2009). It can be exerted through group association (the bully may belong to a gang, an exclusive clique or composition different from that of the victim). This imbalance of power also can be related to specific attitudes and beliefs held by victims. For instance, victims may be terrified by the bully or may hold beliefs that prevent them from defending themselves (Parada, 2002). The crux of the matter here is that bullies deliberately, take advantage of this power imbalance to dominate victims repeatedly in unsolicited ways. They proactively seek victims due to characteristics they gauge as making the selected victim an easier target than others around them (Parada, 2006). These include knowledge that they will be able to overpower their targets, and also that the victims will be less likely to stand up for themselves or get even.

Building on these points, the definition of school bullying can be said to include several key elements but at the core of most literature are the following three descriptions: physical, verbal or psychological attack or intimidation that is intended to cause fear, pain or damage to the victim; an imbalance of power (psychological or physical), with a more powerful child (or children) oppressing less powerful ones; and lastly, repeated incidents between the same children over a prolonged period (Farrington, 1993; Olweus, 1993). School bullying can occur in school or on the way to or from school. It is not considered bullying when two persons of the same strength (physical, psychological, or verbal) victimize each other (Salmivalli, Kärnä & Poskiparta, 2009). It does not include corporal punishment or other forms of violence on students by teachers. Hence, the bullying considered in this research is exclusively peer-to-peer.

From its definition, school bullying may appear to take various forms, including but without limitation to one or more of the following: pestering, threats, intimidation, stalking, hitting, theft, public humiliation, and destruction of property or retaliation for alleging an act of bullying (Beale & Scott, 2001). The major types of bullying are often classified in the literature as direct or indirect (Mishna & Alaggia, 2005). Physical and verbal bullying are usually considered to be a direct form, while social (relational) bullying refer to an indirect form of bullying (Owens, Shute & Slee, 2000). Direct bullying such as hitting and name-calling is quite obvious in nature. According to Farrington (2009) indirect bullying is aimed at damaging the victim's social status and is often much less detectable by bystanders or witnesses. It may include gossiping, rumour mongering and convincing others to socially exclude the victim (Underwood, 2003). Boys experience and tend to engage much more in direct bullying while girls are more often the targets of indirect bullying (Craig & Pepler, 2003). Interestingly, in a recent study by Goldstein, Young and Boyd (2008) gender was not reported as significant predictor of either form of bullying.

Such bullying behaviours have evidently, existed within schools long before it became a focus for empirical researchers (Rigby, 2002). In Ghana, anecdotal evidence of bullying in secondary schools suggest that it manifests predominantly from the onset of so called 'homoing' rituals and behaviours of some students especially those in upper classes (Owusu, Hart, Oliver & Kang, 2011). Bullies are likely to be in upper classes and victims in lower classes. When victims progress to higher classes they then tend to bully those in lower classes and then the vicious cycle continues. Thus, according to these anecdotal accounts, bullying is cyclical within senior secondary school. The anecdotal evidence also did indicate that bullying and victimization were rife in boarding schools or secondary schools with residential facilities relative those without it

(Owusu et al., 2011). That is not to say that bullying and victimization were absent from non boarding schools or day institutions.

Risk factors for Bullying. The characteristics of bullies and victims have been found to be closely related to its risk factors (Rigby, 1999). Socio-demographic characteristics as such age, gender, religion and school environment have also been found to be related to bullying. According to Andreou (2001), adolescents from lower socioeconomic status families are more likely to bully others. In view of these, an outline of the main characteristics of individuals involved is presented, before explaining the risk factors for bullying.

Bullying in schools (Olweus, 1999; Smith & Brain, 2000) is often conceptualized along a continuum across bully category recognizing that children may be involved in bullying behaviour with varied degrees as the victim, a bully, a bully/victim and uninvolved peer (Espelage & Swearer, 2008). The typical bully profile has been found to be less than consistent. Theories sway from bullies being 'popular' and confident planners (Sutton, Smith & Swettenham, 1999), through to anxious and depressed individuals (Salmon, James, & Smith, 1998). Bullies have been found to possess personality defects, such as having an optimistic inclination for violence (Andreou, 2001) while lacking a positive perception of themselves (Olweus, 1999). They tend to exhibit aggressive behaviour in general, even towards adults, and seem to find reward in dominance over others. Students who bully have strong needs for power and find satisfaction in causing injury and suffering to other students. They may come from homes where the parenting style is either authoritarian or permissive, where aggressive behaviours of the parents are viewed as normal (Smokowski & Kopasz, 2005). Having said this, some bullies have been found to be highly socially skilled and good at warming themselves with their teacher and other adults. Due to this, it is usually not easy for adults to determine or even

imagine that these students perpetrate bullying. (Sutton et al., 1999) found that bullies can be socially central members of the peer system.

Smokowski et al. (2005) describe victims as generally but always younger, smaller, less popular and physically weaker than those who bully them. They typically have a passive or submissive attitude and may be seen as targets that cannot strike back. Victims have also been found not to be particularly assertive. According to Schuster (1996) some victims also tend to be low school achievers and are likely to have parents often characterized as overprotective (overprotective mothers and distant fathers). They may come from enmeshed families, wherein independence and self assertion is not emphasised (Myron-Wilson, Smith & Sutton, 2001); as a result, they often fail to develop their own coping skills. They long for approval; even after bullying, some may continue to make ineffective attempts to interact with their victimizer (Cohn & Canter, 2003). They may try to stay close to teachers or other adults during breaks, avoid bathrooms and isolated areas or make excuses to stay home from school as much as possible (Olweus, 1993). Victims are also reported to be introverted and frequently suffer from low self-esteem and anxiety (Boulton & Smith, 1994).

When students have been bullied and feel irked about it, they sometimes bully others. By so doing, they think they are repossessing their power and gaining a sense of closure to their experience of bullying. They may not be chronic bullies, but do what appears normal within the circumstance (Salmivalli et al., 2009).

If we look back in time, we may recognize that human history has been replete with such characters as evident in the infamous world wars, civil strife, inter country sanctions and so forth. Bullying can be a complex matter, especially sometimes when other factors may be involved (for example financial incentive). Nevertheless there is one common premise: bullies are glad to see

others suffer (Olweus, 1993). In the long run, one comes to realise that within the society bullying abounds (Olweus, 1997). Perhaps we can never fully eradicate bullying since one cannot even be most certain of what causes it. Nonetheless having good understanding of its risk factor and predictors may in no doubt help provide alternative ways to tackle it (Espelage et al., 2011; Farrington, 1993).

One risk other factor that has emerged in most literature is the quality of attachment children have to the primary caregivers (Cook, Williams, Guerra, Kim, & Sadek, 2010). The Attachment theory hypothesizes that the quality of attachment to caregivers affects one's interpersonal relationships in later years (Monks, Smith, Naylor, Barter, Ireland, & Coyne, 2009). Perhaps this explains why lack of parent–youth relationship and interaction can influence bullying behaviour.

Ainsworth and Bowlby (1991) described human attachment as comprising of three major styles: secure, avoidant, and ambivalent/insecure. Most people have secure or stable attachments. Children at early ages with secure attachments with their parents can relate more positively with others (Monks et al., 2009). Those who lack secure attachments to their caregivers are likely to develop poor social skills, which can result in peer conflicts and peer rejection. According to Ireland & Power (2004) children who bully are more likely to exhibit avoidant attachment. Adolescents who experience avoidant attachment style tend to have relationships problems with peers, are unwilling to invest time into their relationships, and have difficulty expressing their emotions with loved ones (Mikulincer, 1998). Insecure child-parental attachment among middle school students has been found to be associated with both self-report and peer-report measures of bullying (Eliot & Cornell, 2009). Walden and Beran (2010) hinted that students who report a

high quality attachment relationship with their primary caregiver are unlikely to bully others and be victimized.

Sensation seeking disposition has also been identified as a predictor for engaging in bullying behaviour. Adolescence is a time of increased risk taking and novelty seeking (Williams & Guerra, 2007). Spear (2000) suggests that adolescents may be less affected by moderate stimuli than children or adults. Subsequently, adolescents may seek out sensation-generating activities, such as bullying another (teasing, hitting or humiliating) for rewarding experiences. Thus, engaging in bullying may be an attempt to provide the adolescent with acceptable levels of arousal. This search for sensation would invariably result in another person been its source. Victims on the other hand, may want to avoid highly risky situations. Therefore sensation seekers may consider such persons vulnerable and are likely to use them.

Kokkinos and Kipritsi (2012) have also identified Emotional Intelligence (EI) has as a possible risk factor for bullying. It is a form of social cognition that encompasses the perception, analysis and production of behaviours specific to emotional content (Salovey & Mayer, 1990). People who possess well developed EI are generally more aware of their own emotions and can manage and express those emotions effectively (Mayer, Roberts, & Barsdale, 2008; Mayer, Salovey, & Caruso, 2004). Such individuals are more likely to report positive relations with others and less likely to report negative interactions with close friends (Lopes, Salovey, & Straus, 2003). Gini (2006), describes bullies as having a low level of emotional intellectual functioning, and lacking effective social skills. Bullies are reported to be unable to process social information accurately (Randall, 2001) or understand others' feelings, thoughts and perspective (Hazler, 1996). Therefore, they resort to violence as their only means to reach their goals, as their repertoire of responses is limited by their intellectual and social impairments.

According to O'Moore and Kirkham (2001) bullying and being bullied are associated with low self-esteem. Literature on self-esteem in relation to children who bully others remains less consistent. Self-esteem differences between bullies and victims have been the centre of debate. There is suggestion that bullies sometimes themselves tend to have low self esteem. Some researchers suggest the presence of low self-esteem is a risk factor in both groups (Andreou, 2001). Others posit that victims have low self esteem; bullies have high self-esteem (Olweus, 1999).

Psychological Outcomes of Bullying. On March 10, 2011, President Barack Obama and First Lady, Michelle Obama of the United States of America hosted the White House Conference on Bullying Prevention. In addressing the conference, President Obama stated:

“If there's one goal of this conference, it's to dispel the myth that bullying is just a rite of passage or an inevitable part of growing up. It's not. Bullying can have destructive consequences. . . . We all remember what it was like to see kids picked on in the hallways or the school yard. I have to say with big ears and the name that I have, I wasn't immune” (as cited in Lee, 2011, para. 1 & 3).

People usually tend to perceive the negative effects of bullying more in terms of victimisation but perpetration has been also linked with negative outcomes. Bullying perpetration has also been associated with depression, suicide, conduct disorder and psychosomatic problems (Carney, 2000; Klomek, Sourander, Kumpulainen, Piha, Tamminen & Moilanen, 2008) risk-taking behaviours, such as substance use (Eisert & Jensen, 2003), and poor academic achievement in adolescent population samples (Townsend, Flisher, Chikobvu, Lombard, & King, 2008). Longitudinal studies among adults support the notion that victimization is followed by depression (Juvonen, Graham, & Schuster, 2003). Victimization may result in negative self

evaluation which can lead to depression, disassociation or suicide (Carney, 2000). Rigby (2001) also suggests that suicidal ideation is significantly related to peer victimisation. Undoubtedly bullying is detrimental to the overall wellbeing of all involved – bullies, victims and the bystanders who witness it (Vreeman & Carroll, 2007).

The sequel of bullying and victimization on teenage psychosocial health includes victims exhibiting a wide range of maladjustment such as internalizing problems, peer rejection, lack of close friendships, acceptance of deviance, less optimal temperament, negative emotionality and reactive aggression (Marini, Dane, Bosacki, & Ylc-cura, 2006). Other consequences of bullying and malicious teasing on victims include feelings of shame, humiliation, anxiety, and low self-esteem (Juvonen et al., 2003). Increased fear and anxiety may become an everyday part of the lives of the students who are bullied, as they go through great lengths of attempts to stay away from bullies and the places they are often found (Marini et al., 2006).

Bullying tends to have negative impact on the school climate and on students' right to learn in a safe and secure environment without fear. It has been estimated that about 160,000 students fail to go school because they dread been harassed or intimidated (Owusu et al., 2011) and approximately 20% of students have reported being scared throughout.

In addition to the immediate possible effects, bullying may have serious long-term negative outcomes. An intergenerational transmission of victimization has also been noted by Farrington (2009). Victims tend to stay victimized in their adult lives and often have children who are bullied. Recent studies further revealed that about 25% of bullies have a criminal record by the time they are 30 years old (Vreeman et al., 2007). Studies have shown that those identified as bullies at school, are more likely to be convicted for a crime by early adulthood (Brewster & Railsback, 2001; Farrington, 2009; Olweus, 1997).

Problem Statement

All throughout the Ghanaian Junior and Senior High Schools, there have been several reports of bullying behaviours. Again, ample evidence illustrating the possible effects of these activities on the social and even the mental health of students implies that this problem cannot be overemphasized (Hawker et al., 2000; Rivers, 2009). These ill effects can also extend beyond the peer group. Olweus (1991) observed that, apart from the direct victims, others (such as parents, teachers, or siblings) often become affected the typical bully's aggressive behaviour (Rigby, 1996). These outcomes of bullying are clearly issues of great and immediate social concern (Klomek et al., 2007).

Considering that nearly all students are either targets, perpetrators and or witnesses to bullying incidents (Merrell, Gueldner, Ross & Isava, 2008) it is important, to develop a deeper understanding of the etiology of the problem in order to provide bullying education for students, teachers and parents. To date however, systematic researches on bullying have focused primarily on intervention, and not much attention has been given risk factors. Therefore studying the risk factors especially within the Ghanaian context where bullying is considered a harmless adolescent practice could advance theory and also help develop effective prediction and prevention of bullying behaviour.

Aims and objectives of the study

Substantially, this study is aimed at gaining a better understanding of bullying and victimization in high schools. Thus, it is the aim of the present study is to further explore and provide a clearer understanding of bullying through an empirical investigation of a number of

correlates, within a sample of Ghanaian High School Students. The current study examines in-school bullying (physical, verbal and social) with two main purposes: firstly, to explore how the adolescent's attachment (measured in adolescence) to their primary caregiver, their self esteem, sensation seeking behaviour and emotional intelligence predict the likelihood of the individual engaging in bullying. The second aim is to investigate the association between bullying, depression and suicidal ideation among adolescents aged 12-19.

The objectives of this paper are thus to ascertain the following:

The extent to which family factors predict whether an adolescent will be a perpetrator or victim of bullying behaviour

The extent to which personality factors predict whether an adolescent will be a perpetrator or victim of bullying behaviour

The extent to which emotional intelligence predict whether an adolescent will be a perpetrator or victim of bullying behaviour

The extents to which self esteem predict whether an adolescent will be a perpetrator or victim of bullying.

The extent to which being a bully or being bullied predict depression and or suicidal ideations among adolescents

Significance of the study

This study has the inherent ability of providing up to date information on student's propensity to engage in bullying behaviour. Thus, it would fill the lacuna with regards to data on risk factors and psychological outcomes of bullying in Ghana, especially among adolescent

students. Additionally, it would further help inform parents, educators and other researchers on some of the possible predictors of depression and suicidal ideations in specific relation to bullying behaviours among students. That is, the study would help determine the most probable variables that are capable of fostering bullying among students in Ghana.

Chapter Two

Literature Review

The high prevalence and negative sequel of bullying in schools (Rigby, 1996), gives a strong indication that researchers and educators have a daunting task trying to understand and explore it (Goldstein et al., 2008; Owens, Shute, & Slee, 2001; Smith et al., 2000). The present study seeks to contribute to the process by focusing on adolescents in Ghanaian high school environment. The present chapter would concentrate on theories that have been used to explain bullying behaviour among adolescent and also review empirical research in the area. The review of literature would focus more on how variables such as quality of parental attachment, sensation seeking tendencies, emotional intelligence and self-esteem influence bullying and victimization behaviour. The literature review also highlights research work that provides directions on the relationship between bullying, depression and suicidal ideation.

Theoretical Framework

The Theory of Mind theory (Premack & Woodruff, 1978). The phrase theory of mind was introduced by Premack and Woodruff (1978). Premack et al. (1978) introduced this theory in their experiment with chimpanzees, to determine if the chimps had the ability to attribute mental states to themselves and others. They showed short films of a human encountering several problems (e.g., trying to escape from a locked cage or reach inaccessible food) to a chimpanzee named Sara and then stopped the videotape before the solution was reached. Premack and Woodruff then showed Sara two photographs placed beside the video monitor, only one of which illustrated the human being resolving the problem. They recorded that time and again Sara chose the photograph that corresponded with the appropriate solution, indicating to them that she attributed mental states to the actor. She possessed a TOM. In a sense she chose what she would have done or what he should do, granted she was in the actor's position.

The definition of Theory of mind (Premack et al., 1978) involves two components. The first is having the understanding that others (also) have minds, such as the person's own beliefs, desires, and intentions (Humphrey, 1984). The second is the ability to explain and predict others' desires and behaviour, based on one's own mental states (Baron-Cohen, 1995). Theory of mind develops gradually, with innate social skills appearing in infancy and then reflective of social cognition developing during the toddler and preschool years (Astington & Dack, 2008). The development of theory of mind among children is influenced for example, by how caregiver (parents and siblings) communicates thoughts, wants and feelings (Ruffman, Slade & Crowe, 2007).

Sutton and Keogh (2001) have suggested that individuals who possess well developed TOM skills will be more capable of reading and understanding the feelings and emotions of other people. Juxtaposing this theory to bullying, presupposes that, for one to effectively bully another, he must be able to understand the mental states of his target and also predict the behaviours that can be utilized to manipulate his target's mind and gain control over him or her. According to Sutton (2003) and Sutton et al. (1999) successful bullying may be a result of superior TOM skills. By implication, this ability could be a potential useful skill in all aspects of bullying; particularly with social bullying such as spreading rumours, exclusion of victims from social groups; without being caught in a bullying action (Sutton et al., 1999). In social situations, for a bully to exclude his or her victim successfully, the bully needs to be aware of the feelings of others in the social context to manipulate or influence them to make the victim feel "unwanted". Thus, bullies do not lack social competence as implied by other frameworks (Social Skills Deficit model by Crick & Dodge, 1994) but rather possess an advanced precognition ability at "reading" other people especially their victims or targets.

According to this theory, children begin to exhibit more fine-tuned TOM skills as they develop beyond six years of age (Sutton et al., 1999). As indicated by research, it is more probable to expect older bullies to use social and verbal types of bullying, while younger bullies exhibit more physical (direct) methods (Rivers & Smith, 1994). Secondly, social (indirect) bullying is more likely to occur with girls than with boys (Bjorkqvist, 1992), and TOM studies indicate that girls exhibit more sophisticated TOM skills than boys (Baron-Cohen & Hammer, 1996).

Summarily, the theory of mind has obvious implication for the present study. The theory is employed to explore and explain variables such as personality, and self-concept variables

influence bullying among Ghanaian children. Specifically, the present theory informs current study objective on the extent to which emotional intelligence is predictive of bullying among the perpetrator or victim as suggested by Bjorkqvist (1992) and Sutton et al. (1999). The theory is also employed in present study on the theory premise that others (such as study sample) have a mind (Baron-Cohen et al., 1997) which should be further explored to observe findings among a collectivist culture sample.

Sensation seeking theory. Perhaps a biological and physiological basis for bullying and victimisation is provided by the sensation seeking theory (Connor, 2002). Sensation seeking is a personality trait that gives the basis for understanding the propensity to engage in bullying behaviour as satisfying a biological need. Together with traits like extraversion and impulsivity; sensation seeking has been related to the enzyme monoamine oxidase (MAO), which points to the role of central monoamine systems in the trait. The enzyme MAO, in turn, has been related to risk-taking activities. More so, according to Healy (1997) damage to the area of the brain responsible for controlling aggressive urges, the amygdala and an imbalance of the hormone testosterone can also affect the activity of neurotransmitters in the brain, lowering serotonin levels thereby creating a neurological state which is associated with disinhibition, acting on impulse and seeking arousal and stimulation in the environment. Another suggestion is that certain individuals, as a result of brain damage at birth, suffer from a cluster of symptoms which render them incapable of moral control, and are constantly seeking stimulation because of this cortical under-arousal.

According to the earlier optimal level theory by Carol and Zuckerman (1977), sensation seekers should be more prone to use drugs of all types; that stimulate high cortical arousal levels. Zuckerman (1979), Zuckerman (1983b) and Zuckerman (1984a) found a positive significant

relationship between drug use and sensation seeking. These findings suggest that people use drugs to stimulate and maintain arousal in the cortex (Carol et al., 1977). From this view, it can therefore be implied that some people deliberately bully others to meet and satisfy a physiological need for arousal. Thus bullies have been found to be high on sensation seeking because they probably derive stimulation (arousal) from the thrill of bullying others (Knyazev, Slobodskaya & Wilson, 2002).

Hence, sensation seeking theory (Zuckerman, 1979) provides a very comprehensible explanation for why adolescents who bully have been found to have low arousal levels. The theory states that chronic low arousal is an aversive physiological state therefore individuals seek activities and experiences that will gratify their need for sensation. It also maintains that there are varying levels of sensation (high or low) that can be applied. For instance a person relaxing while watching a television program in the evening would be in a low state of arousal, whereas if the same person was waiting to be interviewed for employment during the day would be in a high state of arousal. In effect, the level of arousal within each person varies throughout the day. Thus, arousal levels refer to the different states of consciousness associated with different activities (Eysenck & Gudjonsson, 1989). Individuals have their own natural level, ranging from low to high (Eysenck et al., 1989). Individuals who are distressed from low arousal “hunt for” excitement, often in a manner of engaging in some sort of violent or disruptive behaviour, so as to gain arousal levels to their personal optimal (Eysenck, 1964). On the other hand individuals with high levels of arousal tend to avoid stimulating situations, in an involuntary effort to reduce anxiety and escape potential punishment (Connor, 2002). Invariably, this results in why such persons are usually picked on by others and seen as vulnerable prey for bully victimisation.

High levels of stimulation are assumed to predispose individuals to having increased sensitivity to signals of punishment and non-reward (Knyazev et al., 2002). It can produce a number of typical behavioural problems, such as emotional maladjustments, anxiety, avoidant behaviour, reticence, nervousness, timidity and shyness (Matthews & Deary, 1998; Knyazev et al., 2002). Meanwhile, low levels of arousal have also been linked to a number of personality traits and behavioural problems (Eysenck, 1964; Matthews & Deary, 1998; Knyazev et al., 2002). Research has revealed that low aroused individuals tend to be highly socially skilled (Lieberman & Rosenthal, 2001). Under arousal is also believed to cause individuals to be less sensitive to signals of punishment in the presence of cues for reward (Knyazev et al., 2002). A high positive correlation has been found between low arousal and antisocial and criminal behaviour in both longitudinal and cross-sectional studies (Raine, Venables & Williams, 1990b; Coren, 1999).

The sensation seeking theory has several implications for the present study. By emphasizing biological factors, it impinges on the present study to explore inherent variables such as family and personality variables in the “perpetrator-victim bully hypothesis”. By using a collectivist sample, the present study adds to the empirical validation process of justifying the applicability of the sensation seeking theory postulations on adolescents of African descent.

No one theory provides a holistic approach to the study of bullying in general. Nevertheless, when the two theories that explain bullying relationships in this study are considered; the theory of mind most adequately provides succinct understanding of the complexity of bullying during adolescence. The theory of mind is used in the present study to stress that bullying can be an outcome of the type of relationship teens have with their peers. The theory of mind theory also presents the view that people conjecture theories of other peoples

mind and if they do this well they would be able to manipulate and control them to their benefits. It against this backdrop that this theory was also used since bullying is not only about physical torture; but also the desire for psychological dominance. Again, the theory of mind was included because cognitive theories of depression and suicide ideations suggest that cognitively vulnerable teenagers experience increases in depressive symptoms often in the face of negative events (Abela & Hankin, 2008).

Review of related studies

Risk factors

Adolescent Parental Attachment and Bullying. Children's lack of secure attachments to parents during childhood; have been found to be implicated in bullying behaviours in school (Cummings-Robeau, Lopez, & Rice, 2009). An empirical study of the relationship between adolescent's attachment to parents and bullying behaviour was conducted by Kõiv (2012). The aim of the study was to investigate the extent to which bullies, victims, bully/victims and non involved students differed in their attachment styles (secure, avoidant and anxious/ambivalent). Data was collected from a sample of 1,921 students (1,006 females and 915 males) from eight randomly selected schools in Estonia. The sample included student in grades four through to nine (ages 10 to 18 years).

Bullying (perpetration and victimisation) behaviour was measured using the Peer Nomination Inventory (Perry & Kusel, 1988) which required the participants to nominate their peers whom they considered fitted the typical bully profiles (bully, victim, bully/victim, neutral). Attachment styles were with the self rating Multiple-item Attachment Scale (Simpson, 1990). Participants were categorized into bullies, victims, bully/victim and non-involved. From this categorization Kõiv, identified 178 of the total 1921 as pure bullies, 168 fitted the victim profiles while 16 of the participants were categorised as bully/victim (bullies $n = 178$; victims $n = 168$; and bully/victims $n = 16$, nonparticipants = 1,559).

Findings indicated avoidant attachment styles were higher among bullies than victims and non-participants of bullying. The finding also revealed that victims demonstrated higher levels of insecure attachment than bullies and uninvolved adolescents. The findings the study

suggest that insecure attachment to primary caregiver (parent) is a risk factor in the development of bullying behaviour in adolescence. The study was however not without limitations. The sub group samples size were quite small, especially with lesser number of students identified as those who reported both bullying others and being bullied (bullies $n = 178$; victims $n = 168$; and bully/victims $n = 16$). This is based on the fact that a total of 1,921 were sampled for this study out of which the four sub groups emerged. Since the sample with bully/victims ($n=16$) was fewer, the statistical power would be relatively low and only the strongest effects would be detected, which may also account for the significant results.

In a related study, Williams (2011) examined the relationships between parent-child attachment and bullying (both physical and relational) and victimization. The objective of the study was to identify some of the parental factors that predict bullying and victimization. Particularly, the study was intended to investigate how paternal and maternal attachment styles predict both bullying and victimization. Williams (2011) also examined whether self-esteem mediate the relationship between attachment and aggression.

Data was collected from a convenient sample of 144 students ($n = 58$ males and $n = 86$ females). The average age of the participants was 19.46 ($SD = 1.61$). A slightly modified version of the ECR-R Questionnaire (Fraley, Waller, & Brennan, 2000) was used to measure childhood parental attachments. Physical aggression was measured with a subscale of the Aggression Scale (Buss & Perry, 1992). The shortened version of the Indirect Aggression Scale for aggressors (IAS-A; Forrest, Eatough, & Shevlin, 2005) was used to measure relational aggression. A modified version of two subscales of the Social Experiences Questionnaire (Yeung & Leadbeater, 2010) was used to measure victimization. Rosenberg's self-esteem scale (Rosenberg, 1965) was used to measure self esteem.

Findings indicated that female participants were more likely to be physically aggressive when they had higher levels of attachment avoidance to their mothers and higher levels of attachment anxiety with their fathers. Female participants were found to more likely engage in social bullying when they experienced higher levels of attachment anxiety to their mothers. Male participants were found to be more likely to engage in social aggression when they experienced higher levels of attachment anxiety to their fathers. Considering, peer victimization, female participants who reported higher levels of anxiety about their maternal relationships were more likely to report being a victim of peer aggression in childhood. Self esteem was not found to mediate the relationship between aggression (both physical and relational) and measures of avoidance towards the father and or mother.

William (2011) study had a methodological constrain which may affect an attempt to generalize the finding to the population. The constraint is with the scale that was used to measure parental attachment. The ECR-R Questionnaire requires participants to recall events from their adolescence (ages 11 to 13). Considering that the participants were averaged aged 19.46 (SD = 1.61), it is most likely that their memories for these events may not have been accurate or might have been distorted. Also since it was a self report, they might not have given an accurate account of what really took place in their past. Despite the limitation, William (2011), finding have added to the literature on bullying by taking into account specific attachment patterns (avoidance and anxiety) and specific types of aggression (physical and social). It also examined father-child relationships as well as mother-child relationships. This is quite significant because most researchers tend to avoid or ignore the influence of these variables (paternal-child relationship).

Indeed, a prior study by Walden and Beran (2010) also confirmed that the quality of attachment an adolescent has with his or her caregiver is significantly related to the likelihood of engaging in bullying. The point of their study was to determine the relationship between students' quality of attachment to their primary caregivers and the likelihood of engaging in bullying. They were also interested in the prevalence of bullying and victimisation among their sample of Canadian students. One hundred and five students in Grades 4, 6, and 8 (46 girls, 59 boys; $M = 10.5$ years) participated in the study. Results indicated that students with lower quality attachment relationships are more likely to bully others and be the victims of bullying than their peers with higher quality attachment relationships. They did not find significant grade or sex differences for the attachment, bullying, or victimization variables.

Additionally, in related study, Eliot and Cornell (2009) investigated the influence of parental attachment on peer bullying among a sample of sixth grade students. They carried out a Path analyses to investigate the mediating effect between aggressive attitudes on parental attachment and peer bullying. The total number of participants were 110, consisting of 59 boys and 51 girls with a mean age of 11 years (11 to 13). Bullying behaviour was identified using both self-report and peer nomination measures. Students who approved attitudes indicating insecure attachment were more likely to be identified as bullies by their peers. Their result showed that aggressive attitudes mediated the relationship between insecure attachment and bullying.

Sensation Seeking and Bullying. Sensation seeking has been linked to actions directed towards regulating arousal levels (Zuckerman, 1979). In their study, Lovegrove, Henry and Slater (2012) explored among other variables the relationship between sensation seeking and the likelihood of engaging in bullying. Their study employed latent class analysis to determine bullying groups among 3,114 students (48% male, 52% female) in 40 middle schools across the

United States of America. Four classes were constructed: victims (15%); bullies (13%); bully-victims (13%); and noninvolved (59%). 58% of respondents were White, 11% were African American, 23% were Hispanic, and 8% were of other race/ethnicity, including multiracial. All participants were in seventh grade at the start of the study. Their aim was to examine whether individual personality traits such as sensation seeking and the quality of social relationships between adolescents and school, their peers, and family would significantly predict the constructed bullying categories.

Data used in the study was collected during the evaluation of a media and community based marijuana use prevention intervention. Data collection was spread out within the four groups between 2005 and 2009. Four waves of data were collected in each school over two years, using similar questionnaires each time: firstly, at the beginning of seventh grade, and the end of seventh grade, the beginning of eighth grade, and lastly, the end of eighth grade. Six items were used to measure bullying involvement; three measured victimization, while the remaining three items measured perpetration. Students' sensation-seeking was measured using three items, to which students responded on a five-point scale ranging from very often to not at all.

Results of the study indicated that African-American students reported being less successful at school and had a higher likelihood of membership in the bullies' class. On the whole, students with a higher tendency toward sensation-seeking reported a higher likelihood of membership in the bullies and bully-victims classes; whereas lower levels of sensation seeking was associated with membership in the victims. Bully-victims were also found shared characteristics with bullies and victims. These findings add to the literature by introducing a constructed categorical latent model of bullying involvement using data taken from a more diverse sample and examining potential predictors of bullying involvement categories

simultaneously. However, some limitations are noticed in the study; specifically, the measure of bullying involvement. Although its items were similar to items usually used in the measurement of bullying, the items used in the study did not have the same degree of validity demonstrated by others as such the Revised Olweus Bully/Victim Questionnaire. (Olweus, 1996) or Adolescent Peer Relations Instrument (Parada, 2010)

Prior to the study of Lovegrove et al., (2012), Woods and White (2005) had examined the relationship between direct and relational bullying (bully, victim, bully/victim and neutrals) profiles, arousal levels, and behaviour problems. Their study investigated bullying behaviour, arousal levels and behaviour problems with two main aims. The first aim was to investigate whether there was an association between bullying behaviour and arousal levels. The second aim was to find out if high and low arousal levels were differentially associated with behaviour problems such as hyperactivity, conduct problems, emotional problems, peer problems and prosocial behaviour.

They sampled 242 (males: 121, females: 121) participants from two Secondary schools in Hertfordshire, United Kingdom. Participants were year nine pupils aged 13 and 14, with a mean age of 13.5 years (SD 0.5). They were required to complete the following three questionnaires: Arousal Predisposition Scale (APS), the School Relationships Questionnaire (SRQ) and Strengths and Difficulties Questionnaire (SDQ) which measures arousal level, bullying behaviour and behaviour problems respectively.

Out of the 242 pupils who took part in the study, 15 were identified as direct bullies, 29 as direct victims, and 12 as direct bully/victims. The remaining 186 were classified as neutrals. Their findings indicated that direct bully/victims had significantly higher mean arousal levels

compared with direct neutral pupils. Findings also indicated that the bullies and victims of both direct and relational form of bullying had the highest levels of arousal compared to those who were uninvolved in bullying. The results also indicated that behaviour problems (emotions, conduct, hyperactivity, peer problems and prosocial behaviour) in the clinical range were associated with clinical levels of over-arousal (sensation seeking). The results however did not suggest significant associations between clinically low arousal levels and each of the subscales of the SDQ.

Employing a much larger sample, Woods, Bloomfield and Karstadt (2001), also studied the relationship between sensation seeking and bullying behaviour (bullying and victimisation). They aimed to examine the association of direct and relational bullying experience with sensation seeking. They studied a total of 1,639 children drawn from 31 primary schools. Participants were year nine pupils aged 13 and 14, with a mean age of 13.5 years ($SD=0.5$). They grouped participants into bullies, victims, bully/victims and neutrals. They administered The Arousal Predisposition Scale: The APS (Coren & Mah, 1993) as a measure of sensation seeking desirability. They found a statistically significant difference between mean arousal levels and bullying perpetration. Results further indicated that bully/victims had significantly higher mean arousal levels compared with victims and neutral pupils. The finding of the relationship was supported by later findings of Woods et al. (2005)

In relation to cyber bullying, recent studies by Juvonen and Gross (2008) and Li (2010) have seem to suggest that students' roles in traditional bullying predicted the same behaviour in cyber bullying. Both reported found that victims of traditional bullying also reported being targets of online attacks. These suggest that cyber bullies and victims would not be expected to vary significantly in terms of sensation seeking.

In their study, Livingstone, Haddon, Görzig and Ólafsson (2011) examined the relationship between sensation seeking and cyber bullying among adolescents (9-16years) from 25 European countries. The researchers interviewed a random stratified sample of 25,142 internet users aged 9-16, and one of their parents, in their respective homes. The participants were grouped into bullies, victims, bully/victims and non-involved. Incidences of bullying behaviours were found to be highest in Lithuania, Denmark, Estonia, Sweden and Romania. Lowest cases were recorded in Italy, Portugal, Turkey and Greece. They found that two bullying groups: bullies and bully/victims showed higher sensation seeking compared to those non-involved and those who are bullied online.

Taken together, these findings suggest that sensation seeking is a very significant predictor of bullying and victimisation behaviour.

Moir and Jessel (1995) however, found weaker evidence that biochemical factors are associated with criminal (bullying) behaviour. They did not find that low levels of arousal led to increased aggression (bullying perpetration) among. Their study was limited because the experiment was done with animals. Moreover, animal studies cannot always be generalised to human behaviour. Nonetheless, it does provide some evidence that biochemical correlates of bullying should be researched further.

Emotional Intelligence and Bullying Behaviour. The relationship between emotional intelligence and bullying has been studied in childhood and adolescence (Eisenberg & Miller, 1987). Brain and behavioural science research (Eisenberg et al., 1987; Gini et al., 2009) shows that deficits in emotional intelligence can sabotage the intellect of children and adolescents. Rather early in bullying research, Olweus (1993) suggested that bullies tend to have little or no

empathy for their victims. Bullies have been considered one of the most troubled groups of students along the continuum (Macklem, 2003). In one of the early studies specifically examining bullying behaviour and empathy, Salmivalli, Kaukiainen, Kaistaniemi and Lagerspetz (1999) explored peer ratings of aggression and empathy in 526 school children (274 girls, 252 boys) aged between 10 and 14 in Finland. They found significant negative correlations between empathy and each of the physical, verbal and social forms of bullying. These findings laid the foundation for further investigations of bullying and empathy.

In an attempt to increase the generalizability of their findings, Endresen and Olweus (2002) surveyed four large samples of 2,286 Norwegian students (1,093 girls and 1,193 boys) aged 13 to 16. They administered the 12-item self-report Empathic Responsiveness Questionnaire and the Olweus Bullying Questionnaire. The findings as well indicated a significant negative correlation between reported bullying behaviour and empathy; suggesting a link between low emotional intelligence and bullying. Results indicated that a self-reported positive attitude toward bullying mediated the connection between empathy and the frequency of bullying others. Those students with low levels of empathic concern were more likely to bully others more frequently and to perceive bullying as a positive phenomenon. These results complement the findings of Salmivalli et al., (1999).

In a related study on children's emotional intelligence and bullying behaviour, Warden and Mackinnon (2003) found that prosocial children were less likely to engage in bullying. Their study was aimed at investigating the links between children's social behaviour and their sociometric status, empathy and social problem-solving strategies. Data was obtained from a sample of 131 (9 and 10 year old) children drawn from two matched schools in the United Kingdom. Bullying behaviour was measured with the Social Behaviour Questionnaire. This

questionnaire led to the identification of 21 prosocial children, 23 bullies and 14 victims of bullying. Children in these subgroups were then assessed on measures of empathy and social problem-solving. Their findings revealed that bullies and victims were most frequently rejected by their peers. It was also revealed that prosocial children scored significantly higher than bullies and victims on a measure of emotional empathy (The Index of Empathy for Children and Adolescents, Bryant, 1982). Thus prosocial children showed significantly greater empathic awareness than both bullies and victims. Prosocial children and victims were found to respond more positively than bullies to bullying situations, and bullies were less aware than prosocial children of the possible negative consequences of their actions. Their findings indicated that gender contributed significantly to the variance in empathy and bullying and victimisation behaviour.

In their study, examining 268 middle school students' attitudes about their feelings, their friends, and aggression, Espelage, Mebane, and Adams (2004) found that both bullies and victims reported the lowest level of concern for others and were significantly less likely to be involved with caring acts. These results suggest that bully and victims as subgroups along the bullying continuum are high risk groups.

These studies influenced the study of Stavrinides, Georgiou and Theofanous (2010). Theirs was aimed at testing the direction of effect in the relationship between bullying and empathy. They also examined the interrelations between bullying and the two main components of empathy. Specifically, it was aimed at examining whether cognitive and affective empathy can predict children's bullying behaviour or whether children's bullying behaviour predicts cognitive and affective empathy. It was also aimed to investigate whether there are gender differences in bullying and empathy. In line with these aims they tested longitudinal associations

between empathy and children's involvement in bullying in order to determine the sequence of events between empathy and bullying. They employed a total of 205 (108 girls and 97 boys; mean age =11.7 years), for the two phases of the study. These participants were sixth-grade students, randomly selected from seven urban and rural schools in Cyprus. A six-month, two-time-point longitudinal design was used in which the participants completed the bullying subscale of the Revised Bullying and Victimisation Questionnaire (BVQ-R) and the Basic Empathy Scale. The results of the study showed that bullying at Time one negatively predicted the affective component of empathy at Time two. It was also found that children's affective empathy at Time one negatively predicted bullying at Time two. The results of the study indicate that bullying and empathy are reciprocally related. In that, as empathy increased; bullying was likely to decrease. In terms of gender differences, it was revealed that whereas boys had higher mean scores in bullying than girls, girls had higher mean scores than boys in affective empathy. This is in line with earlier findings (Warden et al., 2003).

In order to gain a better understanding of bullying behaviours; Lomas, Hansen and Downey (2012) conducted a study to investigate the relationship between emotional intelligence (EI) of adolescents, bullying behaviours and peer victimisation. They sampled 68 (31 males, 37 females) adolescents with ages ranging between 12 and 16 years ($M = 13.85$, $SD = 1.06$) from a secondary college in Melbourne, Australia. Participants completed a self-report questionnaire which assessed their emotional intelligence, how frequently they bullied and how often they were the target of peer victimisation. These were the 57-item Adolescent Swinburne University Emotional Intelligence Test (Adolescent SUEIT) (Luebbers, Downey, & Stough, 2007) and Peer Relations Questionnaire (PRQ) (Rigby & Slee, 1993) for emotional intelligence and bullying behaviour respectively.

Results of their study indicated that the Emotional Intelligence dimensions of emotions direct cognition and emotional management and control, significantly predicted the propensity of adolescents been bullied. The emotional intelligence dimension of understanding the emotions of others was found to be negatively correlated with been a bully. This is actually the first study that examined the relationship between emotional intelligence specifically and bullying behaviour. Favourably, this study lends more support to earlier finding that negative relationships exist between emotional intelligence (empathy) and both bullying and victimisation.

Kokkinos and Kipritsi (2012) also suggested that there is a significant negative correlation between emotional intelligence and bullying. This was after they examined the relationship between bullying, victimization and a number of social-emotional variables such as trait emotional intelligence, empathy and self-efficacy among 206 elementary school students (6th graders) in Greece. Results indicated that boys reported significantly more direct and indirect bullying behaviours and higher victimization than girls. Bullying negatively correlated with overall self-efficacy, trait emotional intelligence and empathy; victimization was negatively correlated with trait emotional intelligence, affective and cognitive empathy. Gender, trait emotional intelligence, and cognitive empathy significantly predicted bullying. Victimization was predicted by gender, trait emotional intelligence and affective empathy.

Although the above studies found negative correlations between emotional intelligence and bullying behaviours an alternative view has been presented by Sutton, Smith and Swettenham (1999). Their study focused on social cognition and the tendency to engage bullying and victimisation behaviours. They assessed the responses of 193 school children (ages 7–10) to 11 short stories designed to test the child's understanding of the character's mental states and emotions. The authors did not refer to this as a measure of emotional intelligence, but it is similar

to measures of cognitive empathic responses to story/picture presentations, which have been commonly used to assess empathy in younger children (Feshbach & Feshbach, 1982). Self and peer interviews were used to classify the children as bullies, assistants (to bullies), reinforcers (of bullies), defenders (of victims), victims. Cognitive and emotions score were produced for each participant.

Sutton and his colleagues found that those classified as bullies scored significantly higher on emotional intelligence abilities than other participants (victims, bully/victims). They also found a significant positive correlation between the extent of different types of bullying behaviour (physical, verbal and social) and the emotion score. Thus, bullying correlated positively with mental state and understanding; however victimization was found to be negatively associated with this ability. The relevance of these results, seem to suggest that in a bullying situation, perhaps having an idea of the mental states of those involved, together with an ability to manipulate these thoughts and beliefs, may be critical for the bully in developing and sustaining such status. Nonetheless, based on these, it is clear that the relationship between emotional intelligence and bullying behaviours require further empirical investigation.

Self-esteem and Bullying. Self-esteem is viewed as a conjunction of a person's thoughts, behaviours, feelings and actions (Branden, 1969). Although numerous studies have been carried out on self esteem and bullying behaviour; debate still surrounds the specific manner in which they relate. It is not clear as to which of the groups: bullies or victims have self esteem problems. However, from the rapidly growing literature on bullying, it is increasingly recognised that being bullied (victimised) is associated with low self-esteem. For example, In Ireland, Neary and Joseph (1994) conducted a study on 60 Irish schoolgirls between the ages of 10 and 12. The aim of the study was to establish if a relationship existed between self-esteem and peer-victimization

and depression. The authors designed the Peer-Victimization Scale which was used to measure peer victimisation. It consisted of six items; three of which refer to having been the victim of negative physical actions and the other three refer to having been the victim of negative verbal actions. Self esteem was measured using the Self-Perception Profile for Children (SPPC) developed by Harter in 1985. The study also utilized the 18-item Birleson Depression Inventory Scale (Birleson, 1981). The participants were also asked to name children in the class whom they thought were being bullied.

Although only 12 girls identified themselves as victims, 30 girls were identified at least once by their peers as those they considered were bullied. It was revealed that higher scores on the Peer-Victimization Scale correlated to the lower scores on the SPPC and higher scores on the Birleson Depression Inventory (Neary et al., 1994).

In order to replicate the work of Neary and Joseph and to confirm the internal reliability of the Peer-Victimization Scale, Callaghan and Joseph (1995) employed a proportionally larger sample of 120 schoolchildren between the ages of 10 and 12 years. The sample consisted of 63 boys and 57 girls from four classes in two separate schools in Northern Ireland. All of them completed the Birleson Depression Inventory and the SPPC. Again, participants were asked to write down names of their peers whom they thought were being bullied.

Their results indicated that 70 children were identified by at least one of their classmates as someone who was bullied while only 13 identified themselves as having been bullied. Children who were identified by peers and those who identified themselves as having been bullied both scored significantly higher on the Peer-Victimization Scale and the Birleson Depression Inventory. These groups of bullied students also scored lower on the SPPC. The

internal reliability of the Peer-Victimization Scale was found to be high; suggesting that their aim to replicate the study of Neary et al. (1994) was met. Their study confirmed that self esteem predicts peer-victimisation.

A further investigation was conducted by Austin and Joseph (1996) also to confirm the internal reliability of the Peer-Victimization Scale and its relationship with scores on the SPPC and Birleson Depression Inventory among a sample of English schoolchildren. In their study, however, Austin and Joseph wanted to investigate not only the victims but the perpetrators of bullying as well. They therefore, developed a six-item Bullying Behaviour Scale that was administered together with the Peer-Victimization Scale. This allowed them to classify the children into bully, victim and bully/victim and non-involved groups and order further investigate their similarities and differences. They sampled 425 schoolchildren consisting of 204 boys and 221 girls between the ages of 8 and 11 years from five primary schools in Merseyside, England.

Peer-Victimization Scale was not found to demonstrate significant difference between the boys and the girls although the boys scored higher than the girls on the Bullying-Behaviour Scale. The victims and bully groups both scored the lowest on the SPPC scales and but higher on the Birleson Depression Inventory. These results demonstrate that one's self esteem does have a significant impact on the tendency to bully and be bullied and issues related to depression.

Though the previous study by Austin and Joseph (1996) began to look more closely at the comparisons of classified groups of students involved or not involved in bullying, Johnson and Lewis (1999) conducted a study that focused more specifically on the self-esteem of bullies and non-bullies. They hypothesised that bullies would be more likely to score higher on self-esteem.

Their study was conducted in England with 245 participants whose ages were 14-15 years and were in their 10th year of school. These participants were selected from three different schools. The purpose of their study was to examine the elements of the self-concept (more specifically self-esteem, perceived social competence, and perceived scholastic competence) of those teenagers identified as bullies. They used a modified version of 'The Life in School Checklist' (Arora & Thompson, 1987), which was a 40-item checklist to measure bullying. However, since the checklist was originally designed to identify victims of bullying, the tense of the statements were changed from passive to active in order to identify bullies rather than victims. They also administered the Perceived Competence Scale for Children (PCSC), (Harter, 1982) as a measure of self-concept. The results confirmed their hypothesis that adolescents displaying bullying behaviours scored higher on measures of self-esteem than did their peers of non-bullying. A limitation of the study is that the validity of bullying-behaviour checklist may have been affected since its tenses were modified to connote an active tense instead of the original passive tense

Similar findings were reported in a study by Kaukiainen, Salmivalli, Lagerspetz, Tamminen, Vauras, Mäki, and Poskiparta (2002). They conducted their study on bullying and self esteem in Finland. Their study employed a sample of 141 children aged 11 to 12 years. Self esteem was measured with the Perceived Competence Scale for Children (Harter, 1979). Kaukiainen et al. (2002) found that self esteem positively correlated with peer-nominated bullying scores. They indicated a significant positive correlation between bullying perpetration and self-esteem.

Rigby and Cox (1996) found similar results in their study. They examined the relationship between self-esteem, bullying, and delinquency in 13 to 17 year old adolescents ($n = 763$). They found that although global self-esteem was not significantly associated with self

reported bullying in male adolescents, there was a significant negative partial correlation between self-esteem and bullying in females. It was also revealed that those categorised as bullies had significantly higher mean global self-esteem scores than victims and none involved.

While Johnson et al. (1999), Kaukiainen et al. (2002) and Rigby et al. (1996) found bullies to have a high self-esteem of themselves; a study conducted by O'Moore and Kirkham (2001) disputed those findings. On a much larger scale, they conducted a nationwide study of primary and post-primary school children in the Republic of Ireland. The study consisted of 13,112 school children between the ages of 8 and 18. The number of primary school children consisted of 7,315 (3,652 boys and 3,663 girls) between the ages of 8 and 11 years old from 259 primary schools. The number of post-primary school children was 5,797 (2,147 boys and 3,650 girls) between the ages of 12 and 18 years from 135 post-primary schools. The goal of their study was to investigate the relationship between self-esteem and bullying behaviour within a large population sample. Bullying and self esteem was measured with a modified version of the Olweus self-report questionnaire Piers-Harris Self-Concept Scale respectively.

From their results O'Moore et al. (2001) reported that both primary and post-primary school children that had been victims of bullying had significantly lower global self-esteem than those who had not been bullied. It was also revealed that children who were involved in bullying as victims, bullies or both had significantly lower global self-esteem than children who were not involved in bullying. The bully-victims of all ages had the lowest self-esteem of the subgroups in the study. Also, the more frequently children were victimised or bullied others, the lower was their global self-esteem. This also corresponds with the assertion that those low in self-esteem are more likely to perceive an incident as peer victimisation and to interpret events more

negatively. However, it is important to note that gender differences were not addressed in this study.

A study conducted by Egan and Perry (1998) closely examined how involvement in bullying was related to self-esteem among 189 school children (mean age 10.8 years). They tested two hypotheses: the first being that low self-regard contributes over time to victimization by peers. Their second was that behavioural vulnerabilities (e.g., physical weakness, manifest anxiety, poor social skills) and a low self-regard are more likely to lead to victimization than healthy self-regard. In order to test these hypotheses Egan et al. (1998) measured self esteem of their participants at the start of the school year and again after five and half (5.5) months into the same year. They found that both hypotheses were supported.

This suggests that poor self-concept may play a central role in a vicious cycle that influences a child's status as a victim of peer abuse. This further indicates being victimised further reduced self-esteem, perpetuating a vicious cycle and making these individuals even more susceptible to victimisation. However, the findings of Egan et al (1998) may be limited in respect to the interpretation of the results. This is because other or third variables such as age, gender and academic competence could have accounted for the reduction in self esteem.

As the above studies show, victims of bullying report significantly lower levels of self-esteem than bullies. Meanwhile bullies tend to score both low and high on self esteem. However Boulton and Smith (1994) did not find enough empirical evidence to support to these assertions. Boulton and Smith (1994) explored bullying among 8 and 9 year old children ($N = 158$). They found that the mean scores for global self-worth from the Self-Perception Profile for Children

(Harter, 1985) did not differ significantly between peer nominated bullies, victims, and those not involved.

Finally, Rigby and Slee (1993) also provide similar results using a sample of 1,162 male and female secondary school students (12-18 years old). Self esteem was measured with Rosenberg self-esteem scale. Their findings also did not reveal a statistically significant correlation between global self-esteem and the tendency to bully or being victimised.

Psychological outcomes of bullying. Studies (Carlyle & Steinman, 2007) among adolescent populations from diverse countries have confirmed an association between bullying and being victimised and self-reported depression and suicidal ideation. Bullying among adolescents is linked to adverse effects. They can range from physical bodily harm to academic difficulties and difficulties with forming healthy social relations and so forth. However, the focus of this study is on depression and suicide ideation because it bothers on the quality and one's perception of his life. Another reason is that if depression and suicidal thinking are not picked and addressed among adolescents at school; it may develop into full blown psychological difficulties during adulthood (Farrington 1993).

Bullying behaviour and depression, suicidal ideation. First, (Kaltiala-Heino, Rimpelä, Marttunen, Rimpelä, & Rantanen, (1999) conducted a study in Finland with the objective of assessing the relationship between being a victim or perpetrator, depression, and severe suicidal ideation. 16,410 (8,196 girls and 8,214 boys) Finnish students between the ages of 14 and 16 participated in the study. Participants completed the school based survey of health which included questions about bullying and the Beck depression inventory, which includes items on suicidal ideation. Results indicated that boys and girls who were frequently bullied reported

severe suicidal ideation. They found that depression and severe suicidal ideation was high among both bullies and victims.

In a very similar study, Owusu, Hart, Oliver, Kang (2011) examined the relationship between bullying victimization and selected psychological variables among senior high school (SHS) students in Ghana, West Africa. They used data from the 2008 Ghana Global School-based Student Health Survey (GSHS) to determine bullying behaviour and psychological distressed experienced by the students. A total of 7,137 students participated in the study. They found that both victims and perpetrators of bullying significantly reported more negative psychological health compared to students who were not involved in bullying. These studies (Kaltiala-Heino et al., 1999; Owusu et al., 2011) provide a good opportunity to assess cross sectional relations between being bullied or being a bully, self reported depression, and severe suicidal ideation. The sample sizes were large so the least significance would be detected. However, one limitation of the study is the measure for bullying. The GSHS contains only two questions on bullying behaviour, asking participants only these questions limits the scope of bullying thereby affecting the validity of the measure. A more appropriate measure such as the Adolescent Peer Relations Instrument (used in the present study) or Peer Nomination Inventory could have been employed.

Uba, Yaacob and Juhari (2010) conducted their study on bullying, victimization and pro-social behaviour as predictors of depression among students in Malaysia. They had three aims for the study. The first was to determine whether there is a relationship between bullying, victimization and pro-social behaviour and depression. Another aim was to determine the differences in depression, bullying, victimization and pro-social behaviour among male and

female teenagers. Their third aim to determine the unique predictor of depression among peers. In line with these aims they sampled 242 students aged between 13-17 years (Mean = 15, S.D. = 1.3). They administered The Children Depression Inventory (CDI) (Kovacs, 1985) as a measure adolescent depression. The Peer Relationship Questionnaire (PRQ) by Rigby and Slee (1993) was used to assess bullying, victimization and pro-social behaviour among respondents of the study.

The findings indicated that depression has a positive significant correlation with both bullying and victimization and a negative and insignificant correlation with pro-social behaviour. The finding however did not indicate a statistical difference between males and females on depression. They found victimisation to be a unique predictor of depression. The result provides confirmation of previous research findings on the pattern and direction of relationship between the components of peer relationship (bullying, victimization, pro-social behaviour) and depression.

Fleming and Jacobsen (2009) also conducted a study aimed at gaining a better understanding of the relationship between bullying and the symptoms of depression among middle school students in Chile. A total of 8,131 middle school students participated in the study. 47% of students reported having been bullied within a month prior to the assessment. Students who reported being bullied in the past month were more likely than non-bullied students to report symptoms of depression. Being bullied was associated with a statistically significant increase in reported rates of sadness and hopelessness. Approximately 30% of the participants (bully, victim, both, uninvolved) reported symptoms of depression and suicidal thoughts. This study suggests a strong link between, bullying and victimisation and symptoms of depression.

This finding is consistent with studies of bullying and depression in adolescents from other parts of the world (Uba et al., 2009).

In a meta analysis of data from 19 low and middle income countries Fleming and Jacobsen (2009) confirmed that bullying is a predictor of depression. The meta analysis was conducted with the aim of examining the prevalence of bully victimization among middle-school students. It was also aimed at exploring the relationship between bullying, mental health and health behaviours. They selected and analysed publicly available studies conducted between 2003 and 2006 from: Botswana, Kenya, Morocco, Namibia, Swaziland, Uganda, Tanzania, Zambia, Zimbabwe, Chile, Guyana, Venezuela, China, Philippines, Tajikistan, Jordan, Lebanon, Oman and the United Arab Emirates. In all 90, 973 students answered questions bothering on experiences of depressive symptoms. 45.6% of students bullied experienced depression. In 16 of the 17 countries, victims reported higher rates of sadness and hopelessness than non-bullied students. These results provide confirmation of earlier findings on how peer relationships are related to emotional problems.

In a comparable study, Kim and Leventhal (2008) also carried out a systematic review of 37 studies that investigated the relationship between bullying behaviour and suicide in children and adolescents. The researchers reviewed research conducted from 16 countries in five continents. Almost half of the studies were conducted in the United States of America, one third in Europe, and the rest in Australia, South Korea, Japan, South Africa, and Canada. All 37 studies used cross-sectional surveys. Ninety two percent of the studies reviewed reported a significant positive association between bullying profiles (bully, victim or bully/victim) experiences and suicidal risks (suicidal ideations, suicidal behaviour behaviours and variable of

any suicidality) with strongest risks in bully-victims. Three of the studies however, did not report a significant relationship between bullying and suicidal ideations.

Despite methodological and other differences in the studies they reviewed, it was confirmed that any participation in bullying (bully, victim or both) increases the risk of suicidal ideations. As is apparent from the above literature, suicide ideations as a consequence of bullying are generally comparable for both bullies and victims.

Klomek, Marrocco, Kleinman, Irvin, Schonfeld and Gould (2007) carried out a study to explore the association between bullying behaviour and depression, suicidal ideation, and suicide attempts among adolescents. A sample of 2,342 students from ninth through to twelfth grade completed self-report surveys in the study. The sample comprised students from six high schools in New York State, United States of America. The data was collected within a period of two years; from 2002 through to 2004. Klomek et al. (2007) found that frequent exposure to victimization and bullying particularly among girls was related to high risks of depression, and suicide attempts compared with adolescents who are not involved in bullying behaviour.

Similar trends were identified in Roland (2002) study of 1,838 Norwegian eighth graders. Boys who were bullied reported suicidal ideation twice more than non-bullied boys. Girls who were bullied experienced those thoughts about four and half more times than non-bullied girls. In addition, male bullies also reported experiencing suicidal thoughts about three times more than non-bullying males. Girls who bullied others also indicated having suicidal thoughts about eight times more than non-bullying girls.

An Australian research by Rigby and Slee (1999) paralleled the findings of Roland (2002). They investigated the relationships between suicidal ideation, involvement in bullying

and victimisation behaviours at school, and perceived social support. Their sample was made up of 1,984 adolescent students (1103 males and 845 females) attending secondary school in South Australia. Results obtained from self-report and peer nominations indicated that involvement as bullies and victims, especially for students with relatively little social support, was significantly related to suicidal ideation. They identified correlations between suicidal ideation and boys who bullied and were bullied. Similar correlations were found between girls who bullied and were bullied.

In Northern Ireland, Davies and Cunningham (1999) conducted a study with the aim of investigating some of the possible stressor that predisposes adolescents to attempting suicide. They conducted their study among adolescents who were admitted to hospitals following suicide attempts. Out of the 124 adolescent students (11-16 years old) who were admitted following the attempt; they found that 28 of them representing 22% of the patients cited bullying and victimisation as a precursor stressor. 25% reported that they were victims of prolonged bullying for at least one year. This suggests that bullying is one of the stressors most associated with suicidal behaviour in adolescents.

Analogous findings were reported in a study by Salmon, James, Cassidy and Javaloyes (2000). They surveyed 95 adolescents who sought mental health services on both inpatient and outpatient basis. Depression was reported among students who indicated being victims of peer bullying. Their results further indicated that 35% of students seeking inpatient mental health treatment and 27% of students seeking outpatient health treatment reported bullying victimization as an important factor for seeking professional help.

Swearer and Doll (2001) also reported that depression was associated with victimization. They collected survey data pertaining to depression and anxiety among middle school students who fell within the bullying continuum. Data were collected from 469 students in grades 6-9 as part of a larger longitudinal study on bullying and victimization. The Bully Survey (Swearer, 2001) was used to measure bullying behaviour. Depression was measured with the Children's Depression Inventory (Kovacs, 1992). Results indicated that 13.5% of victims reported depression, while 19.2% reported anxiety. Clearly, the negative effect of sustained victimization can significantly impact students' overall mental well-being.

Although all the studies above seem to indicate that bullying behaviours are related to negative psychological problems; the findings of Juvonen, Graham and Schuster (2003) does seem suggest differently. Juvonen et al. (2003) collected data from a community sample of 1,985 largely Latino and Black 6th graders from 11 schools. The results of the study showed that 22% of the sample was involved in bullying as perpetrators (7%), victims (9%), or both (6%). The researchers also found that regardless of the increased conduct problems bullies presented; they did not indicate any signs of depression or thoughts of suicide.

Camodeca and Goossens (2005) also reported similar findings in their survey among Danish students. They surveyed 242 Dutch adolescent students who were nominated by peers as: bully, follower of bully, victim, defender of victim, outsider, and not involved. They found that bullies but not victims did not report feeling depressed.

Congruent findings have been reported by Klomek, Sourander, Kumpulainen, Piha, Tammine and Moilanen (2008) in an examination of the association of childhood bullying behaviour with later depression, suicidal ideation, attempts and completed suicide. Information

on bullying was collected at the age of eight through self, parent and teacher's reports. Depression and suicidal ideation were assessed ten years later during the Finnish military call-up examination. Among the large sample of 2,348 Finnish boys born in 1981, they found that bullying behaviour at age eight was not associated with suicidal ideation 10 years later when childhood depression was controlled for.

In another longitudinal study, Klomek, Kleinman, Altschuler, Marrocco, Amakawa and Gould (2011) reported comparable findings. Their study involved a sample of 238 adolescents aged 13 through 18 years, enrolled in ninth through twelfth grade in six high schools in the New York State of America. Participants who reported frequent bullying behaviour without depression or suicidality during a suicide screening were interviewed four years later to reassess depression, suicidal ideation, attempts, substance problems and functional impairment. They found that involvement in bullying during high school years, whether as perpetrator, victim, or bully/victim did not present as a risk indicator for suicidal ideation if the student did not experience depression.

In Africa the most comprehensive study of victimization due to bullying was carried out in eight African countries: Kenya, Namibia, Morocco, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe (Brown, Butchart & Kann, 2008). They collected and analysed data with the Global School-based Student Health Survey (GSHS) developed by the World Health Organization (WHO) in collaboration with other partners including UNICEF, UNESCO, UNAIDS amongst a host of other institutions. The survey targeted students between the ages of 13-15 years. With a sample size of 33,382 students from these selected countries, came a variation, which allowed for meaningful analysis and reaching significance in relationships among the variables to be reached. The authors found a prevalence rate of 25% to 63% of being

bullied on at least one day during the 30 days preceding the survey. This was significant across countries. Nearly 20% of the youth in Zambia reported being bullied for 10 days or more during the 30 days prior to the conduct of the study. Mental health and suicidal ideation was reported by 16% of the sample while substance use; that is cigarette use was reported by 8% of the sample. This was found to be similar among the age groups but slightly greater in among boys than girls. Boys were also found to be bullied more than girls did. Risky sexual behaviours were also recorded: nearly 20% of boys and 10% of girls were reported to have multiple sexual partners with victims of bullying were more likely to report having multiple partners and reporting to have contracted a sexually transmitted infection when age and sex was adjusted. Bullying behaviour usually took the form of physical aggression with those bullied more likely to engage in physical fighting. This study, although limited to Southern, Eastern and Northern African countries, is an indication of the universality of the bullying and victimization phenomenon. The findings on the adverse short term and long term effects of bullying on health is also in line with research emanating from some western countries, although sub-Saharan Africa was neglected from this all important study.

Summary of findings in the literature review

The literature reviewed, in summary, provides evidence that bullying and victimisation behaviours have been occurring among students in schools for many years. It was also clear that parental attachment is significantly related to bullying and victimisation. Kõiv (2012) found that exposure to insecure and avoidant attachment to primary caregiver (parent) is a risk factor for

bullying behaviour in adolescence. The study was however, limited by the low sample sizes of the subgroups. Williams (2011) also added that both females and males are likely to bully and be bullied when they had avoidant attachment to their mothers and anxious attachment to their fathers. William (2011) study is limited by the retrospective nature in which adolescent parental attachment was measured. Eliot et al. (2009) also suggested that having aggressive attitudes mediate the relationship between parental attachment and bullying behaviours. This study proposes to meet these constrains by using the AAQ which assesses adolescents' current perceptions of secured attachment relationship with a nominated adult attachment figure and employing a relatively larger sample.

Lovegrove et al. (2012), Woods et al. (2005), Woods et al. (2001) and Livingstone et al. (2010) all demonstrated that students with a higher tendency toward sensation seeking have a higher likelihood of being bullies and bully-victims; while lower tendencies toward sensation seeking are associated with victimisation. Although this investigation is purely based on tradition (physical, social, verbal) bullying, Livingstone et al., (2011) study was included in view of Ybarra et al., (2007) findings that cyber and traditional bullying profiles do not differ significantly.

The review of literature further showed a relationship between emotional intelligence and bullying behaviour. The following authors: Kokkinos et al., (2012), Lomas et al., (2012), Salmivalli et al., (1999), Endresen et al., (2002), Espelage, et al., (2004) and Warden et al., (2003) found negative relationships between emotional intelligence and bullying (perpetration and victimisation). Warden et al., (2003) study was limited by the relatively small samples sizes of the subgroups. Stavrinides et al., (2010) revealed that bullying and empathy are reciprocally related. They also found that whereas boys had higher mean scores in bullying; girls had higher

mean scores than boys in affective empathy. Sutton et al. (1999) however found a positive correlation between emotional intelligence and bullying.

From the literature reviewed, the findings on self esteem and bullying are appeared to be mixed. Neary et al., 1994 found a negative correlation between self esteem and victimisation. Callaghan et al. (1995) replicated the study of Neary et al. (1994). They doubled their sample size and achieved similar results. Austin et al., (1996) also confirmed negative correlations between self-reported victimisation and self esteem. Egan et al. (1998) found that self esteem was related with being victimized. Johnson et al. (1999) established that bullies had a high self-esteem. Kaukiainen et al. (2002) and Rigby et al. (1996) also indicated a significant positive correlation between self esteem and bullying perpetration. However, contrary to their studies, O'Moore et al. (2001) indicated that participants who identified themselves as bullies had significantly lower global self-esteem scores than children who had not bullied others. However Boulton et al. (1994) and Rigby (1993) did not find bullies and victims to differ significantly with respect to self esteem. The aforementioned studies had some challenges in respect to the interpretation of the results. Specifically, they did not consider the likelihood that other variables such as age and gender could have accounted for the findings. This study proposes to address this challenge by controlling for these variables. Another limitation is that almost all the studies cited in the review were conducted in the in the United Kingdom and Ireland. Therefore, the present research proposes to address gaps in the literature by carefully examining how self esteem relates to bullying experiences among Ghanaian adolescents in Ghana.

In studies examining the relationship between bullying experience and depression and suicidal ideations, Kaltiala-Heino et al. (1999), Owusu et al. (2011) and Klomek et al. (2007)

found that depression and severe suicidal ideations were reported that depression and severe suicidal ideation were high among girls and boys who were both bullies and victims.

With studies regarding victimisation and depression Uba et al. (2009) indicate that depression correlates positively with victimization. Swearer et al. (2001) also reported that depression was associated with victimization. Fleming et al. (2009) found that victims were more likely to manifest more depressive symptoms and psychological distress than non victims. Kaltiala-Heino et al. (1999) and Owusu et al. (2011) also showed that there is a positive correlation between victimization and depression.

With studies regarding suicidal ideations; Kaltiala-Heino et al. (1999), Roland (2002) and Fleming et al. (2009) found an increased prevalence of suicidal ideation among both victims and bullies. In a review of 37 studies across five continents Kim et al. (2008) reported that all the studies except three established that there is an increased risk of suicide attempts among both victims and bullies. The literature review further showed that victims of bullying were more prone to suicide ideation than non-victims (Kaltiala-Heino et al., 1999; Rigby et al., 1999, Davies et al., 1999 & Roland, 2002).

The literature review pertaining to bullies and depression was found to be less consistent. Some studies did not find an association between being a bully and experiencing depression (Camodeca et al., 2005; Juvonen et al., 2003; Klomek et al., 2008 & Klomek et al., 2011), whereas other studies found that bullies, not victims only, report high levels of depression (Kaltiala-Heino et al., 1999; Uba et al., 2009; Roland, 2002 & Salmon et al., 1998). In a meta analysis of studies from 19 low and middle income countries Fleming et al., (2009) confirmed that bullying significantly predicted depression.

As a final point in this summary of the literature review, it is worth noting that in almost all the studies reviewed, the researchers categorized their participants into the various distinct bullying profiles (bully, victim, bully/victim and non-involved). Nonetheless, Bosworth, Espelage, and Simon (1999) have advocated a continuum approach to the measurement of bully and victim factors. Gumpel (2008) further suggested that there is the need to assess bullying and victimization simultaneously to better understand the complex patterns of relations between them. This also involves assessing the same participants at the same time. In the present investigation, the aforementioned suggestions (Bosworth et al., 1999; Gumpel, 2008) are tested. This study will adopt the APRI (Bully/Target) which contains specific questions on each of the three main forms of bullying (physical, social and verbal) as the measure for bullying and victimisation behaviour. The sum of scores on all the subscales is used as the overall measure of bullying and victimisation. It is expected that on the basis of responses on the Adolescent Peer Relations Instrument (APRI), new and substantive insights may be offered.

Rationale

The information presented in this literature review indicates that bullying tends to occur frequently. Bullying is seen to be a serious problem worldwide. The researcher knows from both personal experiences and interactions with teachers and students that the incidence of bullying in Ghanaian schools is high. However, it appears that research been done in Ghana on this topic is limited. This research would therefore augment existing literature specific to Ghana.

Research on the effects of bullying has mainly focused on victims (Rigby, 1996). It is very important to establish whether bullies for example also experience the psychological trauma endured by the victim. Well, this is angle is deemed significant because bullying does not occur

in the vacuum. In other words it is a process that involves at least two people who are likely to share some common characteristics. Further knowledge of characteristics of children involved in bully-victim relationships would provide comprehensible information of possibilities and difficulties of future school-based interventions and allow the development of anti-bullying strategies within the classroom.

Thirdly, there is a void in the existing literature on the relationship between parental attachment, emotional intelligence, sensation seeking and self-esteem and bullying behaviour. Consequently, the present research seeks to explore the predictive values of these variables on bullying. To the researcher's knowledge this is the first study attempting to bridge this gap. Most of the studies reviewed revealed an extensive focus on only one or at best two correlates of bullying. The results of such research could provide an invaluable insight into the possible precursors of bullying and victimisation. For instance, from the literature review it was revealed that findings on emotional intelligence and bullying are mixed; this study thus seeks to determine the unique predicting role of emotional intelligence in bullying behaviour.

Lastly, studies aimed at exposing bullying in schools, as well as psychiatric assessment and treatment of bullies and their corresponding victims, might also prevent common psychological problems such as depression and suicidal ideation which usually accompany it. Bullying and victimization have been recognized as health problems for children because of their association with adjustment problems, including poor mental health and more extreme violent behaviour. It is therefore important to understand how bullying and being bullied affect the well-being and adaptive functioning of youths.

Hypotheses

The following hypotheses were formulated based on literature reviewed:

H₁: Sensation seeking would account for a significant variance in bullying behaviour after controlling for age, gender and parental attachment and self esteem.

H₂: Emotional intelligence would account for a significant variance in bullying behaviour after controlling for age, gender, parental attachment and self esteem.

H₃: Sensation seeking would account for a significant variance in victimisation behaviour after controlling for age, gender, parental attachment and self esteem.

H₄: Emotional intelligence would account for a significant variance in victimisation behaviour after controlling for age, gender and parental attachment and self esteem.

H₅: Bullying and Victimisation behaviour would account for a significant variance in depression among adolescents after controlling for age, gender, parental attachment, self esteem, sensation seeking and emotional intelligence.

H₆: Bullying and Victimisation behaviour would account for a significant variance in suicide ideations among adolescents after controlling for age, gender, parental attachment, self esteem, sensation seeking and emotional intelligence.

Figure 1.1. Conceptual framework

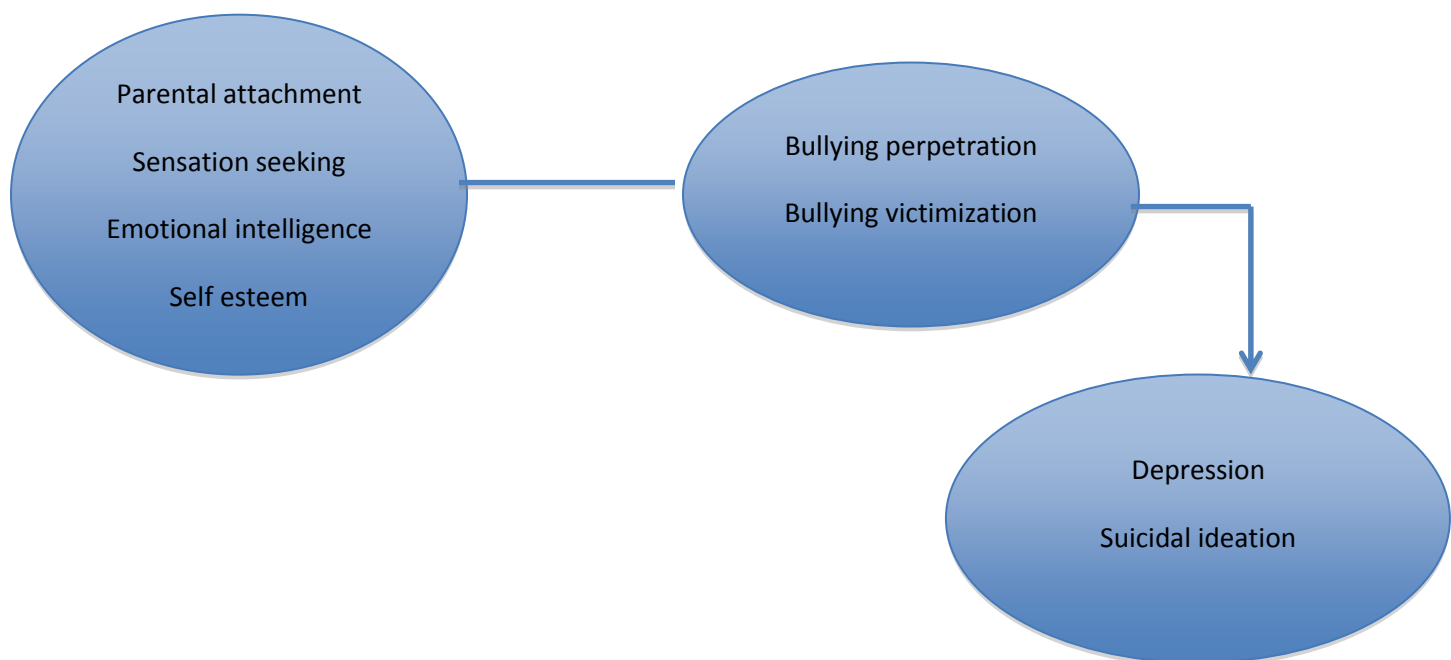


Figure 1.1. Conceptual model being tested in the present study. Based on the findings in the literature reviewed, it is evident that problems with parental attachment (PA), sensation seeking (SS), emotional intelligence (EI) and self-esteem (SE) would be associated with bullying (BP) and victimisation behaviour (BV). Bullying and victimisation behaviour are expected to predict depression and or suicide ideation.

Bullying and victimisation behaviour later serve as predictors of depression and suicidal ideation outcomes

Operational Definitions of Terms

Bullying behaviour (Dependent variable): any act of aggression be it physical, verbal, or psychological attack or intimidation that cause fear, distress, or harm to the victim due to an

imbalance of power (psychological or physical) which occurs over a prolonged period of time (at least two incidents). A bully would therefore refer to the perpetrator of such an act.

Victimization/ victim (Dependent variable): the recipient or target of the above bullying behaviour over a prolonged period or experiencing a form of bullying for at least two incidents.

Bullying: refers to the generic term or any acts of both bullying and victimisation behaviour

Parental attachment: refers to aspect of affectional bond that exists between an adolescent and his/her primary caregiver (typically parent)

Sensation seeking: a dispositional tendency to seek out novelty and accept risk as a desirable source of arousal'. (Slater, Henry, Swaim & Cardador, 2004)

Emotional Intelligence (EI) : the ability to perceive, understand, monitor, and manage one's own and others' feelings, to discriminate among them, and to use this information to make sense of and navigate one's social environment (Mayer & Salovey, 1997).

Self esteem: person's overall evaluation or appraisal of his or her own worth or value (Rosenberg, 1965). For the purposes of this study, self-esteem is measured using the Rosenberg Self-Esteem Scale (SES) (1965).

Psychological outcome (Dependent variable): Depression and suicide ideation measured on the **Columbia Depression Scale.**

Adolescent: a secondary school going male or female individual between the ages of 12–19 years

Chapter Three

Methodology

This section explains the methods used in the current study. It provides information on the research setting, participants, sample, sampling technique, sample size, demographic table, research design as well as knowledge on the measures used, procedures and ethical consideration and clearance.

Research Setting

The research settings were schools. The participants were selected from schools in the Greater Accra Region. These included the Grace Preparatory and Junior High School, St. Mary's Senior High School, Accra Academy and Labone Secondary School. St. Mary's Senior High School is single-sex (female) school; Accra Academy is also a single-sex (male) school. However, Grace Preparatory and Junior High School and Labone High School are both mixed sex schools.

Participants

The target population for the study constituted male and female adolescent students between the ages of 12 and 19 years in Junior and Senior High schools within the Accra Metropolis. The minimum age of 12 equates to Junior High School Form 1 in Ghana. In the same vein, the maximum age of 19 years is approximately supposed to be the age of a final year student of in Senior High School education. The senior high schools were mainstream government assisted schools situated in urban locations with populations of predominantly low and middle social economic status. The junior high school is privately owned and operated, also

situated within similar socioeconomic status. The rationale for targeting this group is that bullying and victimization is quite predominant within this age group. Farrington (2009) also suggests that mid-adolescence is the period of the highest prevalence and frequency of offending. Furthermore; this group is more easily accessible and developmentally old enough to respond to self-report questionnaires.

Sampling procedures

In order to identify which of the regions to conduct the study in, the names of each of the ten (10) regions in Ghana were written on separate pieces of papers and put in a basket. The researcher then proceeded to randomly pick one of the ten pieces of paper. The paper randomly picked had Greater Accra Region written on it. For the purposes of convenience : cost, feasibility and considering that the research was time bound; the researcher randomly Accra Metropolis” as the location for data collection. This means that the schools chosen would or should be located within the jurisdiction of the Accra Metropolitan Assembly. A list of all the Senior High Schools in the Accra Metropolis were obtained from the official website of the Ghana Education Service, West African Examination Council unit (see attached Appendix A). Five Senior (from the list) and two junior high (based on convenience) schools were then approached to take part in the study on a purely voluntary basis.

Out of the seven schools approached, three Senior and one Junior high school expressed interest and agreed to participate. The other two schools indicated that their students will not be available to respond to the questionnaire because they had other pressing academic related issues under consideration. From the three schools where data was collected a total of 372 students consented to participate. Six (1.61%) declined to participate on the day of the study. One (0.27%)

pupil's parents declined permission and 10 students from the respective schools representing (2.69%) of the sample were absent from school on the days of data collection.

After, the selection of schools were completed, the study used two non-probability sampling techniques being the convenience and the purposive sampling techniques and a probability sampling technique which is the stratified random sampling technique to select respondents. Stratified sampling technique was employed to select students from the junior high educational level. That is, simple random sampling technique was used to select respondents from every class (stratum).

The purposive and convenience sampling techniques were used to select respondents at the senior high educational level. That is, most respondents selected from the senior high level of education were based on availability and willingness to be part of the study. Purposive sampling was employed to select participants who fell within the age ranges of 12 to 19 years. Hence, a student from every SHS level (that is, from SHS 1 to SHS 4) was purposively selected.

Inclusive Criteria. The following inclusive criteria were met for the participant; they must be 1) between the ages of 12 and 19 at the time of participation. 2) Enrolled student of the aforementioned schools. 3) Provide both personal assent and parental consent (for participants below the age of 18. 4) Must be willing to fill the questionnaire as truthfully as possible.

Exclusive Criteria. Students who were the age of twelve and those above the age of 19 respectively were excluded. A participant who has not attained the age of eighteen years whose but who's parents/guardian declined consent to participate.

Sample size and power

Three hundred and fifty five (355) students (180 males and 175 females) participated in the study. Respondents were students aged between 12 and 19 years, with a mean age of 15.8 years ($SD = 1.9$). 100 respondents were from Junior High and 255 respondents were from Senior High schools.

This sample size is based on the rule of thumb suggested by Tabachnick and Fidell (2001). Tabachnick et al. (2001) suggested that as the number of cases increase the risk of deriving significance from the slightest of variance also tends to increase. Therefore, it is important to measure the smallest number of cases that has a reasonable chance of revealing significance.

They suggest the following simple guidelines for testing R-square, or multiple regression sample size. The guidelines, is N , should equal or exceed $50 + 8k$, [$N \geq 50 + 8k$] where k equals the number of predictor (independent) variables. Thus, in order to detect medium size effects, a desirable minimum sample size for this study would be $N = 108$. If N is extremely large ($N > 5,000$), even associations that are too weak to be of any practical or clinical importance turn out to be statistically significant. The guidelines described above therefore prescribes that a minimum N of about 108 should be used for multiple regression with four predictor variables of this study, to have reasonable power to detect the overall model fit that corresponds to approximately medium-size R^2 . Since, it is better to have sample sizes that are somewhat larger than the minimum values suggested by these decision rules, the sample size of the present study was $N=355$.

Table 1

Demographic characteristics of participants (N=355)

<i>Variable</i>	<i>Frequency</i>	<i>Percent</i>
Schools		
St Mary's	80	22.5
Accra Academy	97	27.3
Labone	78	22.0
Grace JHS	100	28.2
Age (Mean, SD)	15.85(1.98)	
Gender		
Male	180	50.7
Female	175	49.3
Form		
JHS1	6	1.7
JHS2	58	16.3
JHS3	37	10.4
SHS1	47	13.2
SHS2	79	22.3
SHS3	69	19.4
SHS4	59	16.9
Religion		
Christian	331	93.2
Muslim	24	6.8
Family Type		
One Parent	62	17.5
Two Parent	249	70.1
Extended Family	41	11.5
Care		
Other /Foster Care	3	.8
Socioeconomic Status		
Low	134	37.7
Middle	138	38.9
High	83	23.4

Source: Author's computation

From the Table 1, four schools were selected for this study. Descriptive statistics (means, standard deviation, percentages and frequency) were computed for the demographic data.

Research design

The main aim of this study was to bring to the fore, the risk factors and psychological outcomes of bullying and victimization in Ghana. Cross sectional design was adopted in the study. Employing this design allows for different students at different ages and forms (JHS 1 through to SHS 4) to be assessed at the same time. It also provides a snapshot picture of the variables in question at a specific point in time. Therefore, with the aims of this study already spelt out, the cross sectional design was a better design for the study.

Instruments/Measures

Questionnaire booklet contained seven validated scales and demographic questions.

Demographic data. Section A gathered demographic data using a self-designed questionnaire. These characteristics included age, gender and guardian and/parental information. Respondents were asked to provide details levels, religious background, family type and socioeconomic status. Of the 355 respondents, 180 (50.7%) were males and 175 (49.3%) were females. The minimum age of the respondents was 12 years with a frequency of 16 representing 4.5% of the sample while the maximum age of 19 had a frequency of 23 representing 6.5% of the sample. The mean age of the sample was 15.8 with a standard deviation of 1.98. (see Table 1)

Participant's socioeconomic status was determined by asking respondents to indicate their parent/guardians current occupation and highest educational level. According to (Meier & Moy, 1999) the combination of both current occupation and highest of education are good measures for assessing or determining an individual's socioeconomic status. Therefore, the responses of the participants regarding their parents/guardians were taken as their socioeconomic status.

These formed the demographic section of the questionnaire labeled as Section A.

Bullying Questionnaire. The Section B part of the questionnaire consisted of the Adolescent Peer Relations Instrument: Bully/Target (APRI-BT) by Parada, Marsh and Craven (2010). It is a measure specifically developed to measure interpersonal relationships among high school students (Parada, 2000). The APRI is a self-report behavioural measure which comprises of multidimensional measures of bully/victim behaviours. It consists of 36 items of which 18 measure three types of bullying perpetration behaviour. The other 18 items measure the types of target/victim experiences: physical, verbal, and social/relational. With this instrument the two domains (bully and victimization) are each assessed in relation to three subdomains (verbal, physical, and social), resulting in a total of six scales. Items are measured using a six-point likert scale ranging from *1 = Never*, to *6 = Everyday*. Participants responded on how often they had engaged in specific a form of bullying or series of behaviours against other students ('I have said things about their looks they didn't like', 'I have got my friends to turn against a student') with a year. The second section asks how often these behaviours had occurred to them or experiences of being bullied ('I was teased by students saying things to me', 'I was hit or kicked hard') within the school year.

Responses closer to 1 represented small amounts of bullying or being bullied, whereas scores closer to 6 represented frequent amounts of bullying or being bullied. The lowest and highest scores on perpetrator subsection are 18 and 108 respectively. The target/victim subsections have the same lowest and highest scores. The overall lowest and highest score on the APRI are 36 and 216.

Although the instrument is relatively new, it is the only instrument that has been shown to contain the specific three-factor structure of types of bullying and target experiences (physical, verbal, and social), while also allowing for analysis of total bullying and target experiences (Parada, 2004). The APRI-BT has demonstrated excellent psychometric properties; with Cronbach's Alpha reliability coefficient ranging from .89 to .93. It is the most valid and reliable bullying instrument available for the measurement of the total, as well as types of bullying (Marsh et al., 2011 & Parada, 2006). For this reason the APRI-BT was used in this study.

Risk Factors. The Section C part of the questionnaire was made up of the scales and questionnaires that measure the specific risk factors for this study.

Adolescent Attachment Questionnaire (AAQ, West et al., 1998). The Adolescent Attachment Questionnaire (AAQ; West et al., 1998) was employed in this study. The AAQ provides a continuous measurement of attachment. This questionnaire was particularly chosen because Shaver, Belsky and Brennan (2000) suggested that attachment measures are more precise when analyzed in terms of dimensions rather than types. The AAQ is a brief self-report measure which assesses attachment characteristics in adolescents. It is used to assess the adolescent's perceptions of their attachment relationships to their parent through attachment characteristics. Some items from the questionnaire were modified for this study to provide participants with clearer understanding of the concept. The AAQ assesses adolescents' perceptions of secured attachment relationship with a nominated adult attachment figure ("the person who mostly took care of you") on three continuous dimensions developed around Bowlby's ideas of the key characteristics of children's attachment relationships with key caregivers. The first subscale, *availability*, consists of three items (e.g., "I'm confident that my Mum/Dad will listen to me") and is based upon Bowlby's (1973) idea that a secure attachment

relationship involves an attachment figure that is perceived to be available and responsive to adolescents' attachment-related distress and anxiety. This subscale therefore taps into perceptions of the attachment figure as reliably responsive and available to the adolescent's attachment needs. The second subscale, *angry distress*, consists of three items (e.g., "I get annoyed at my Mum/Dad because it seems I have to demand his/her care and support") and is conceptually linked to Bowlby's (1973) contention that in less secure attachment bonds anger is likely to be directed towards attachment figures when attachment-related needs and desires are not completely met. The subscale therefore assesses negative angry responses to perceived unavailability of the attachment figure. The final subscale, *goal-corrected partnership*, also consists of three items (e.g., "I feel for my Mum/Dad when he/she is upset") and reflects Bowlby's (1969/1982) suggestion that secure attachment bonds are characterized by an increasing sense of empathy towards the attachment figure and that he or she is respected as a separate individual with needs and feelings. Adolescents respond to these nine items on a continuous five-point likert-type scale ranging from 1 (*Strongly Disagree*) to five (*Strongly Agree*). Items for each subscale are averaged. *Angry distress* items are reversed for the purpose of creating an overall score; so that higher scores reflect adolescent perceptions of a conceptually more secure relationship with the attachment figure. All nine items can then be averaged to obtain an overall rating of attachment that varies according to the degree of relationship security.

Sensation seeking scale (From the Zuckerman-Kuhlman Personality Questionnaire, 1993). This is a self-report measure used to determine the level of one's sensation seeking disposition. It was adapted from the original Form V of the Sensation Seeking Scale by Zuckerman, Eysenck, and Eysenck (1978) for adolescents and later modified as one of the five scales that constitute the Zuckerman-Kuhlman Personality Questionnaire (ZKPQ), (1993).

The sensation seeking scale from the Zuckerman-Kuhlman Personality Questionnaire, 1993 was used to measure sensation seeking disposition in the current study. It consists of 19 items. The responses are on a nominal scale labeled, “true or false”. For each statement, respondents are required choose either true or false. If respondents do not like either choice, they mark the choice they dislike the least. Low scores indicate lower sensation seeking disposition and vice versa. Items describe a lack of planning and tendency to act quickly on impulse without thinking. Some items describe a general need for thrill and excitement, preference for unpredictable situations and friends and the need for change and novelty. This scale does not contain any item(s) describing specific activities such as drinking, drugs, sex or risky sports. Therefore it was the most appropriate because the sample were adolescent students. The reliabilities for the ZKPQ are satisfactory ranging $\alpha = .70$ to $\alpha = .80$. Retest reliabilities were $\alpha = .80$ for Sensation Seeking, $\alpha = .84$ for Neuroticism-Anxiety, $\alpha = .78$ for Aggressive-Hostility; $\alpha = .76$ for Activity and $\alpha = .83$ for Sociability. The lowest and highest possible scores on this scale are 0 and 19 respectively.

Emotional Intelligence Questionnaire (Schutte, Malouff, Hall, Haggerty, Cooper, Golden, Dornheim, 1998). It is made up of three subscales comprising: 13 items generated for the appraisal and expression of emotion category, 10 of the items are generated for the regulation of emotion category and 10 come from among items generated for the utilization of emotion. All together it consists of 33 self-referencing statements and requires participants to rate the extent to which they agree or disagree with each statement on a 5 point likert scale response format (1= Strong disagree, 2= Disagree, 3= Neither, 4= Agree, 5= Strongly agree). High score indicate high levels of emotional intelligence. An internal consistency analysis showed a Cronbach’s alpha of 0.90 for the scale (Schutte et al., 1998). According to Schutte et al. (1998) the 33-item

scale requires a reading level characteristic of fifth graders and since the current study was among adolescents; the scale proved to be the most appropriate. The lowest and highest possible scores on the scale are 33 and 165.

Rosenberg self esteem Scale. The Rosenberg Self-Esteem scale was also contained in the Section C part of the questionnaire. It is a 10 item-scale widely used to measure global self-esteem. It has five of its items (3, 5, 8, 9, and 10) worded in the negative form hence has to be reverse scored. These items are rated as strongly agree, agree, disagree, and strongly disagree. Points of 1, 2, 3, and 4 are assigned strongly disagree, disagree, agree and strongly agree response rates. Sample items include: “On the whole, I was satisfied with myself” and “At times, I thought I was no good at all.” Participants indicate the extent to which they endorse each statement using a 4-point likert type scale (1 = strongly agree, 4 = strongly disagree). After reverse coding appropriate items, a score is created by averaging across items. Hence, the higher one’s scores the more one’s self-esteem and vice versa. It has been reported that this scale is a reliable and valid especially among pupils aged 12-17 years of age , with a Cronbach’s Alpha reliability ranging from .81 to .88 (Bagley & Mallick, 2001).

Psychological Outcomes. The last part of the questionnaire (Section D) contained the Columbia Depression Scale which was formerly called the Columbia Diagnostic Interview Schedule for Children (DISC) Depression Scale. This is a self-administered 22-item questionnaire with ‘yes’ or ‘no’ response format made for children over 11 years of age (Zuckerbrot, Maxon, Pagar, Davies, Fisher, & Shaffer, 2007). The first 18 questions measures depressive symptoms and the subsequent four questions ascertain having suicidal thoughts (questions 19 – 22) All “yes” answers on the CDS contribute 1 point to the total score except for the question on lifetime suicide attempts. Thus, a person can receive a score between 0 and 18,

with higher scores indicating a greater chance of depression. A score of 12 or more indicates a high likelihood of a current major depressive disorder. Internal consistency, according to Zuckerbrot, et al. (2007), was high (Cronbach's Alpha value of .87) and It also correlated highly with the co-administered Beck Depression Inventory (intraclass correlation coefficient of 0.79).

Procedure

A pilot study was carried out to verify the psychometric properties of the scales used in this study. The main study was also carried after being satisfied with the psychometric properties of the scales. Details of the pilot and main study are provided below.

The Pilot Study

One pilot study was conducted to establish the consistency of the various instruments that were used in the main study. This helped to modify the research instruments to suit the Ghanaian context by taking out some items and including key concepts. Therefore, a total of 30 adolescents (15 Junior high and 15 from Senior high) were used to test the appropriateness of the scales. The pretesting exercise was carried out at the Corpus Christi Junior and Senior High Schools in Community 18 and Community 19 of Tema respectively. These adolescents were conveniently selected from the two schools (Junior high and Senior high). Based on their response changes were made to reduce the number of questions and make them more appropriate for the adolescents. Corrections such as restructuring instructions for each measure to maintain uniformity were made. Although the outcome of the pilot indicated that most of the participants understood the terms and content of each questionnaire; there were however some few additions and omissions.

Some additions include the use of circling all measures to maintain consistency since some of the instructions required tickling while others demanded circling the appropriate response confused some of the participants. Some terms in the Adolescent Peer Relations Instrument were modified to reflect the typical term usually used in the Ghanaian context. Specifically words such as “crashed”, “swear”, “rumour”, and “ridiculed” were changed to “hit”, “insult”, “gossip”, and “made fun of” respectively on questionnaire in the main study. Other words were modified to accommodate Junior high school aged students. These were ‘remark’ modified to ‘comment’, and ‘ridiculed’ modified to ‘embarrassed’.

Seven scales were used and tested for Cronbach’s Alpha reliability. The Adolescent Peer Relations Instrument (Bully) yielded a total alpha value of .90 ($\alpha = .90$) with its three sub-scales having $\alpha = .89$ for physical, $\alpha = .89$ for Verbal, and $\alpha = .87$ for Social. For Adolescent Peer Relations Instrument (Victim), a total alpha value of .89 ($\alpha = .89$) was recorded with its three sub-scales having $\alpha = .87$ for physical, $\alpha = .89$ for Verbal, and $\alpha = .75$ for Social. The Adolescent Attachment questionnaire had an alpha value of .78, Emotional Intelligence questionnaire had $\alpha = .81$ and Self Esteem had an alpha value of .72. This paved the way for the conduction of the main study as the reliability of the scales were assumed to be acceptable (according to George and Mallery, 2003, rule of thumb) taken the reported reliabilities into consideration. (refer to Appendix E for items used).

The Main Study

Ethical approval from Noguchi Memorial Institute for Medical Research (Institutional Review Board, IRB) was taken to formally pave way to carry out this study. After the ethical approval, letters of introduction were taken from the Psychology Department, University of

Ghana, Legon and submitted to Authorities of the various institutions for permission to be granted for the research. The Head teachers were approached in writing and provided with full written documentation about the study, including the opportunity to contact the research supervisor for any necessary further discussions. Following agreement to participate, written information about the study, was sent to the parents, through the participants below the age of 18. The return rate for all schools was 78%; 99% of returned forms granted permission.

Respondents at the JHS level were selected using the stratified random sampling technique taking into account the inclusion and exclusion criteria. That is, about thirty-three respondents were randomly selected from every form (JHS 1 to JHS 3). The forms had students ranging from 40 to 50 in number. Hence, 33 pieces of 'Yes' papers and a number of "No" papers (depending on the number of students in a class) were made and given to the students who fell into the inclusion criteria to pick. Those who picked the "Yes" pieces of paper became the respondents of the study. This was done at every level but at form two, the pieces of "Yes" papers were increased to 34 (instead of the 33) to sum up to 100 respondents.

At the various senior high educational level schools the researcher was provided with a list of classes for each form and course of study. The courses of study were: General Arts, Visual Arts, Agricultural Science, General Science, Business and Home Economics. The assistance of teachers was sought in locating classes and selection of participants. With the help of the teachers some classes were purposively sampled (especially the General Arts classes) due to their huge number of student base as well as the balance between the sexes. For instance, at SHS 1, the General Arts 1 class was selected whilst General Arts 2 class was selected from SHS 2. After, the classes had been selected; the students were informed about the study and those who were willing and availed themselves were selected (convenience sampling technique) and given

the informed consent or assent form to take home for permission and have their parent or guardian fill out Social Competence Scale (Parent Version) attached if they consent.

Students who returned approved parental consent was then given student assent form that gives details on the study's purpose and the voluntary nature of participation. Respondents were informed that their participation was voluntary and that they could withdraw from the study at any time without penalty.

The final sample included students who provided both parent consent and student assent.

After the permission had been granted, days and times were set for the data collection. On the pre-arranged date, the researcher and trained research assistants gave a detailed outline of what the study entailed to the selected students in their various classrooms. The questionnaires were then distributed to participating students and were asked to complete them individually and in silence. A time period of 45 minutes, which is one lesson period, was used in filling the questionnaire. The exercise was conducted in an examination-like-manner to lend it the confidentiality and seriousness it deserves. When the entire class (participants) had completed filling the questionnaires, it was collected and sealed in an envelope.

Respondents were then debriefed and provided with details of whom they should contact within the school if any issues arose following the study. Finally, they were thanked for their participation. They also received University of Ghana embossed pens as a token of appreciation. Data obtained from this study was kept in a locked file drawer. Confidentiality of the information has been maintained. Questionnaire would be shredded and destroyed if and when they are no longer needed for further research purposes. The code of ethics as prescribed by the American Psychological Association was strictly followed.

Chapter Four

Results

Introduction

The study explored sensation seeking behaviour and emotional intelligence as predictors of bullying and victimization behaviour among adolescents in Ghana. It further explored bullying, victimization behaviour as predictors of depression and suicide ideation. In view of this, six hypotheses were stated and tested. All the hypotheses of the study were tested using hierarchical multiple regression.

Multiple Regression Assumptions

The test for normality of the key variables in this study showed only sensation seeking was normally distributed. All the other variables were not normally distributed. All the variables were transformed using the square root transformation after removing outliers. After these transformations, each of the variables became normally distributed. The transformed scores were used in the multiple regression analysis conducted to test the hypotheses. Additional tests for ensuring that the assumptions for conducting multiple regression analysis such as normal distribution of errors, multicollinearity, homoscedasticity; linearity; and independent errors were run and there was no violation of the assumptions.

The reliability analysis of the scales used in the study and the descriptive statistics of variables is presented. All the scales used in this analysis yielded acceptable results of Cronbach's alpha coefficients, except for Suicide Ideation. These are shown in Table 2 below.

Table 2

Descriptive Statistics of Continuous Variables in the Study and Alpha coefficients of Key Study Variables

Variable	<i>M</i>	<i>SD</i>	<i>A</i>	<i>N</i>	<i>Skew</i>
Age	15.83	1.95	NA	355	-.26
Bullying Behaviour	31.23	12.37	.89	355	1.31
Victimization	33.85	13.93	.89	355	1.16
Parental Attachment	35.66	7.50	.84	355	.91
Sensation Seeking	10.61	3.11	.62	355	-1.52
Emotional Intelligence	124.85	15.07	.85	355	-.05
Self Esteem	19.55	4.60	.71	355	-.66
Depression	10.79	3.43	.68	355	.41
Suicide Ideation	1.62	1.04	.25	355	-.34

A computation of Pearson-Product Moment correlations among the variables of the study was done as shown in Table 3.

BULLYING: RISK FACTORS AND PSYCHOLOGICAL OUTCOMES

72

Table 3

Pearson-Product Moment correlations between the study variables (n=355)

Variable	1	2	3	4	5	6	7	8	9	10	11
1.Age	-	-	-	-	-	-	-	-	-	-	-
2.Gender	-.017	-	-	-	-	-	-	-	-	-	-
3.Form	.772**	-.028	-	-	-	-	-	-	-	-	-
4.B	-.185**	-.200**	-.320**	-	-	-	-	-	-	-	-
5.V	-.170**	-.158**	-.272**	.555**	-	-	-	-	-	-	-
6.PA	.010	.164**	.123*	-.082	-.060	-	-	-	-	-	-
7.SS	.052	-.176**	.069	.292**	.208**	-.040	-	-	-	-	-
8. EI	.176**	.106*	.183**	-	-.086	.135*	.008	-	-	-	-
				.140**							
9.SE	-.015	-.031	-.068	.016	.172**	-.172**	.128*	-.288**	-	-	-
10.DEF	.076	.025	.089	.052	.085	-.064	.208**	.033	.218**	-	-
11.SI	.025	-.163**	.000	.184**	.121*	.007	.257**	-.056	.164**	.281**	-

Note: N=355, * = p<.05, ** = p<.01 (one-tailed). B = Bullying; V = Victimisation; PA = Parental Attachment; SS = Sensation Seeking; EI = Emotional Intelligence; SE = Self esteem; DEP = Depression; SI= Suicide Ideation

The correlation analyses show that age related negatively with bullying ($r = -.19, p < .01$), and victimization ($r = -.17, p < .01$) indicating that the older the adolescent, the less likely they are to bully or victimize others. It however, related positively with emotional intelligence ($r = .18, p < .01$). Other relationships are observed in the hypotheses stated.

Hypothesis Testing

All the hypotheses were tested using Hierarchical regression analyses. The regression analyses were conducted to test the general model that certain independent variables accounted for variance in a dependent variable after controlling for the effects of some other independent variables (control variables).

Hypotheses One. The first hypothesis was that “Sensation seeking would account for a significant variance in bullying behaviour after controlling for age, gender, parental attachment and self esteem”. In step 1 of the hierarchical regression, age, gender, parental attachment and self esteem were entered as control variables. The results showed that there was a significant *R* squared, $F(4, 297) = 16.42; R^2 = .181, p < .001$. In step 2, sensation seeking was entered. The results showed that there was a significant *R* squared change, $F(1, 296) = 17.12; \Delta R^2 = .045, p < .001$. Sensation seeking explained additional 4.5% variance in bullying behaviour, after controlling for age, gender, parental attachment and self esteem. The total variance in bullying behaviour explained by the model as a whole was 22.6%, $F(5, 296) = 17.27; R^2 = .226, p < .001$. In the final model, sensation seeking and 3 of the control variables: age, gender and parental attachment were statistically significant, with age recording a higher Beta value ($\beta = .29, p < .001$), than sensation seeking ($\beta = -.22, p < .001$), followed by gender ($\beta = -.17, p = .002$) and

parental attachment ($\beta = .17, p = .002$). The results from the hierarchical regression showed that sensation seeking accounted for a significant variance in bullying behaviour after controlling for age, gender, parental attachment and self esteem, thus, hypothesis one was supported. The summary of the results are presented in Table 4

Table 4

Summary of Hierarchical Multiple Regression for Hypothesis One

	<i>B</i>	<i>SE B</i>	<i>B</i>
Step 1			
Constant	3.31	0.45	
Age	0.48	0.09	.27***
Gender	-0.35	0.09	-.20***
Parental Attachment	0.22	0.06	.19***
Self Esteem	0.16	0.09	.09
Step 2			
Constant	4.62	0.54	
Age	0.52	0.09	.29 ***
Gender	-0.29	0.09	-.17**
Parental Attachment	0.19	0.06	.17**
Self Esteem	0.11	0.09	.06
Sensation Seeking	-0.36	0.09	-.22***

Note. $R^2 = .181$, ($p < .001$) for Step 1; $\Delta R^2 = .045$, ($p < .001$) for Step 2. ** $p < .01$, *** $p < .001$.

Hypothesis Two. The second hypothesis stated that “Emotional intelligence would account for a significant variance in bullying behaviour after controlling for age, gender, parental attachment and self esteem”. In step 1 of the hierarchical regression, age, gender, parental attachment and self esteem were entered as control variables. The results showed that there was a significant R squared, $F(4, 292) = 16.37$; $R^2 = .183$, $p < .001$. In step 2, emotional intelligence was entered. The results showed that there was a significant R squared change, $F(1, 291) = 5.80$; $\Delta R^2 = .016$, $p = .017$. Emotional intelligence explained additional 1.6% variance in bullying behaviour, after controlling for age, gender, parental attachment and self esteem. The total variance in bullying behaviour explained by the model as a whole was 19.9%, $F(5, 291) = 14.47$; $R^2 = .199$, $p < .001$. In the final model, emotional intelligence and three of the control variables: age, gender and parental attachment were statistically significant, with age recording a higher Beta value ($\beta = .26$, $p < .001$), than gender ($\beta = -.18$, $p = .001$), followed by parental attachment ($\beta = .17$, $p = .003$) and emotional intelligence ($\beta = .14$, $p = .017$). The results from the hierarchical regression showed that emotional intelligence accounted for a significant variance in bullying behaviour after controlling for age, gender, parental attachment and self esteem, thus, hypothesis two was supported. The summary of the results are presented in Table 5.

Table 5

Summary of Hierarchical Multiple Regression for Hypothesis Two

	<i>B</i>	<i>SE B</i>	<i>B</i>
Step 1			
Constant	3.26	0.45	
Age	0.51	0.09	.29***
Gender	-0.33	0.09	-.19***
Parental Attachment	0.21	0.06	.19***
Self Esteem	0.16	0.09	.10
Step 2			
Constant	3.19	0.45	
Age	0.45	0.10	.26***
Gender	-0.31	0.09	-.18***
Parental Attachment	0.19	0.06	.17**
Self Esteem	0.10	0.10	.06
Emotional Intelligence	0.09	0.04	.14*

Note. $R^2 = .183$, ($p < .001$) for Step 1; $\Delta R^2 = .016$, ($p = .017$) for Step 2. * $p < .05$, ** $p < .01$, *** $p < .001$.

Hypothesis Three. The third hypothesis stated that “Sensation seeking would account for a significant variance in victimization behaviour after controlling for age, gender, parental attachment and self esteem”. In step 1 of the hierarchical regression, age, gender, parental attachment and self esteem were entered as control variables. The results showed that there was a significant *R* squared, $F(4, 301) = 12.77$; $R^2 = .145$, $p < .001$. In step 2, sensation seeking was entered. The results showed that there was a significant *R* squared change, $F(1, 300) = 13.62$; $\Delta R^2 = .037$, $p < .001$. Sensation seeking explained additional 3.7% variance in victimization behaviour, after controlling for age, gender, parental attachment and self esteem. The total variance in victimization behaviour explained by the model as a whole was 18.2%, $F(5, 300) = 13.37$; $R^2 = .182$, $p < .001$. In the final model, sensation seeking and three of the control variables: age, gender and parental attachment were statistically significant, with sensation seeking recording a higher Beta value ($\beta = -.20$, $p < .001$), than age ($\beta = .18$, $p = .001$) and parental attachment ($\beta = .18$, $p = .002$) followed by gender ($\beta = -.16$, $p = .003$). The results from the hierarchical regression showed that sensation seeking accounted for a significant variance in victimization behaviour after controlling for age, gender, parental attachment and self esteem, thus, hypothesis three was supported. The summary of the results are presented in Table 6.

Table 6

Summary of Hierarchical Multiple Regression for Hypothesis Three

	<i>B</i>	<i>SE B</i>	<i>B</i>
Step 1			
Constant	3.37	0.53	
Age	0.32	0.11	.16**
Gender	-0.40	0.11	-.20***
Parental Attachment	0.27	0.07	.20***
Self Esteem	0.25	0.11	.12*
Step 2			
Constant	4.71	0.63	
Age	0.37	0.11	.18 ***
Gender	-0.33	0.11	-.16**
Parental Attachment	0.23	0.07	.18**
Self Esteem	0.19	0.11	.10
Sensation Seeking	-0.38	0.10	.20***

Note. $R^2 = .145$, ($p < .001$) for Step 1; $\Delta R^2 = .037$, ($p < .001$) for Step 2. * $p < .05$, ** $p < .01$, *** $p < .001$.

Hypothesis Four. The fourth hypothesis stated that “Emotional intelligence would account for a significant variance in victimization behaviour after controlling for age, gender, parental attachment and self esteem”. In step 1 of the hierarchical regression, age, gender, parental attachment and self esteem were entered as control variables. The results showed that there was a significant R squared, $F(4, 296) = 12.52$; $R^2 = .145$, $p < .001$. In step 2, emotional intelligence was entered. The results showed that the R squared change was not significant, $F(1, 295) = 0.90$; $\Delta R^2 = .003$, $p = .344$. Emotional intelligence did not explain an additional variance in victimization behaviour, after controlling for age, gender, parental attachment and self esteem. The total variance in victimization behaviour explained by the model as a whole was 14.7%, $F(5, 295) = 10.19$; $R^2 = .147$, $p < .001$. In the final model, three of the control variables: age, gender and parental attachment were statistically significant, with parental attachment recording a higher Beta value ($\beta = .20$, $p = .001$), than gender ($\beta = -.19$, $p = .001$) and age ($\beta = .14$, $p = .011$). The results from the hierarchical regression showed that emotional intelligence did not account for a significant variance in victimization behaviour after controlling for age, gender, parental attachment and self esteem, thus, hypothesis four was not supported. The summary of the results are presented in Table 7.

Table 7

Summary of Hierarchical Multiple Regression for Hypothesis Four

	<i>B</i>	<i>SE B</i>	<i>B</i>
Step 1			
Constant	3.36	0.53	
Age	0.32	0.11	.15**
Gender	-0.39	0.11	-.19***
Parental Attachment	0.26	0.08	.2***
Self Esteem	0.26	0.11	.13*
Step 2			
Constant	3.36	0.53	
Age	0.29	0.12	-.14 *
Gender	-0.38	0.11	-.19***
Parental Attachment	0.26	0.08	.20***
Self Esteem	0.22	0.12	.11
Emotional Intelligence	0.04	0.05	.06

Note. $R^2 = .145$, ($p < .001$) for Step 1; $\Delta R^2 = .003$, ($p = .344$) for Step 2. * $p < .05$, ** $p < .01$, *** $p < .001$.

Hypothesis Five. The fifth hypothesis stated that “Bullying and victimisation behaviour would account for a significant variance in depression among adolescents after controlling for age, gender, parental attachment, self esteem, sensation seeking and emotional intelligence”. In step 1 of the hierarchical regression, age, gender, parental attachment, self esteem, sensation seeking and emotional intelligence were entered as control variables. The results showed that there was a significant R squared, $F(6, 278) = 3.53$; $R^2 = .071$, $p = .002$. In step 2, bullying and victimization behaviour were entered. The results showed that the R squared change was not significant, $F(2, 276) = 0.28$; $\Delta R^2 = .002$, $p = .754$. Bullying and victimization behaviour did not explain an additional variance in depression, after controlling for age, gender, parental attachment, self esteem, sensation seeking and emotional intelligence. The total variance in depression explained by the model as a whole was 7.3%, $F(8, 276) = 2.70$; $R^2 = .073$, $p = .007$. In the final model, two of the control variables: self esteem and sensation seeking were statistically significant, with self esteem recording a higher Beta value ($\beta = -.19$, $p = .003$), than sensation seeking ($\beta = .17$, $p = .009$). The results from the hierarchical regression showed that bullying and victimization behaviour did not account for a significant variance in depression after controlling for age, gender, parental attachment, self esteem, sensation seeking and emotional intelligence, thus, hypothesis five was not supported. The summary of the results are presented in Table 8.

Table 8

Summary of Hierarchical Multiple Regression for Hypothesis Five

	<i>B</i>	<i>SE B</i>	<i>B</i>
Step 1			
Constant	3.20	0.82	
Age	-0.01	0.08	-.01
Gender	-0.08	0.07	-.07
Parental Attachment	-0.02	0.11	-.01
Self Esteem	-0.24	0.08	.19**
Sensation Seeking	0.18	0.07	.16*
Emotional Intelligence	0.05	0.03	.11
Step 2			
Constant	2.96	0.90	
Age	-0.02	0.08	-.020
Gender	-0.08	0.07	-.060
Parental Attachment	-0.01	0.11	-0.003
Self Esteem	-0.23	0.08	-.192**
Sensation Seeking	0.19	0.07	.17**
Emotional Intelligence	0.05	0.03	.096
Bullying Behaviour	0.04	0.05	.054
Victimization Behaviour	-0.01	0.05	-.008

Note. $R^2 = .071$, ($p < .01$) for Step 1; $\Delta R^2 = .002$, ($p = .754$) for Step 2. * $p < .05$, ** $p < .01$.

Hypothesis Six. The sixth hypothesis stated that “Bullying and victimisation behaviour would account for a significant variance in suicide ideation among adolescents after controlling for age, gender, parental attachment, self esteem, sensation seeking and emotional intelligence”. In step 1 of the hierarchical regression, age, gender, parental attachment, self esteem, sensation seeking and emotional intelligence were entered as control variables. The results showed that there was a significant R squared, $F(6, 270) = 3.26$; $R^2 = .067$, $p = .004$. In step 2, bullying and victimization behaviour were entered. The results showed that the R squared change was not significant, $F(2, 268) = 0.57$; $\Delta R^2 = .004$, $p = .569$. Bullying and victimization behaviour did not explain an additional variance in suicide ideation, after controlling for age, gender, parental attachment, self esteem, sensation seeking and emotional intelligence. The total variance in suicide ideation explained by the model as a whole was 7.1%, $F(8, 268) = 2.58$; $R^2 = .071$, $p = .01$. In the final model, only gender was statistically significant ($\beta = .16$, $p = .011$). The results from the hierarchical regression showed that bullying and victimization behaviour did not account for a significant variance in suicide ideation after controlling for age, gender, parental attachment, self esteem, sensation seeking and emotional intelligence, thus, hypothesis six was not supported. The summary of the results are presented in Table 9.

Table 9

Summary of Hierarchical Multiple Regression for Hypothesis Six

	<i>B</i>	<i>SE B</i>	<i>B</i>
Step 1			
Constant	1.717	0.43	
Age	-0.019	0.04	-.030
Gender	0.097	0.04	.157**
Parental Attachment	0.002	0.06	.002
Self Esteem	-0.071	0.04	-.115
Sensation Seeking	0.057	0.04	.096
Emotional Intelligence	-0.012	0.02	-.046
Step 2			
Constant	1.758	0.46	
Age	-0.014	0.04	-.022
Gender	0.098	0.04	.159*
Parental Attachment	-0.001	0.06	-.001
Self Esteem	-0.076	0.04	-.124
Sensation Seeking	0.055	0.04	.092
Emotional Intelligence	-0.011	0.02	-.043
Bullying Behaviour	-0.025	0.03	-.070
Victimization Behaviour	0.022	0.24	.071

Note. $R^2 = .067$, ($p = .004$) for Step 1; $\Delta R^2 = .004$, ($p = .569$) for Step 2. * $p < .05$, ** $p < .01$.

Summary of findings. Six (6) hypotheses were examined in this study out of which three were supported statistically. Hypotheses one, two and three were supported: Sensation seeking accounted for a significant variance in bullying behaviour after controlling for age, gender, parental attachment and self esteem; Emotional intelligence accounts for a significant variance in bullying behaviour after controlling for age, gender, parental attachment and self esteem; and Sensation seeking accounted for a significant variance in victimization behaviour after controlling for age, gender, parental attachment and self esteem.

On the other hand hypothesis four, five, and six were not supported: Emotional intelligence does not account for a significant variance in victimization behaviour after controlling for age, gender, parental attachment and self esteem; Bullying and victimisation behaviour did not account for a significant variance in depression among adolescents after controlling for age, gender, parental attachment, self esteem, sensation seeking and emotional intelligence; and Bullying and victimisation behaviour did not account for a significant variance in suicide ideation among adolescents after controlling for age, gender, parental attachment, self esteem, sensation seeking and emotional intelligence.

Chapter Five

Discussion

The purpose of this study was to investigate sensation seeking and emotional intelligence as predictors of bullying and victimization behaviour among adolescents in Ghana and to further investigate bullying and victimization behaviour as predictors of depression and suicide ideation. The results of the study showed that sensation seeking accounted for a significant variance in bullying behaviour after controlling for age, gender, parental attachment and self-esteem. The result obtained, further showed that emotional intelligence accounted for a significant variance in bullying behaviour after controlling for age, gender, parental attachment and self-esteem. Furthermore, the result showed that sensation seeking accounted for a significant variance in victimization behaviour after controlling for age, gender, parental attachment and self esteem. It was also found that emotional intelligence did not account for a significant variance in victimization behaviour after controlling for age, gender, parental attachment and self-esteem; bullying and victimization behaviour did not account for a significant variance in depression among adolescents. Bullying and victimization behaviour were not found to account for a significant variance in suicide ideation among adolescents after controlling for age, gender, parental attachment, self-esteem, sensation-seeking and emotional intelligence in both instances.

Sensation seeking and bullying perpetration.

One of the major goals in this study was to examine the predictive relationship between sensation seeking and bullying perpetration. The obtained results supported the prediction that sensation seeking would account for a significant variance in bullying behaviour over the contributions of age, gender, parental attachment and self esteem. Thus the hypothesis was supported by the data. The result also showed that variables like age, gender and parental attachment contributed to the variance in perpetration of bullying. The inference here is that age is very significant when bullying among adolescents is concerned. Thus, adolescents are likely to engage in or exhibit bullying behaviours against others. The result also showed that males are more likely to engage in bullying behaviour than their female counterparts. It was also indicated that adolescents with low quality parental attachment were more likely to engage in bullying behaviour than their counterparts who had high quality parental attachment. This means age, gender and the quality of parental attachment would influence the likelihood of an adolescent bullying another. That is sensation (arousal) seeking disposition in addition to these variables contribute to adolescent's propensity to bully others. Adolescents who have the desire for risky, thrilling and novel experience and feelings are more likely to engage in bullying others for the sake of such experience.

One possible explanation for this is that since bullies have been found to be low on arousal; (Coren, 1999; Raine et al., 1990b) they may engage in bullying others as an attempt at "hunting" for additional arousal to boost their arousal to their personal optimal level. High arousal (sensation) levels have been reported to be associated with increased sensitivity to punishment. That is, adolescents who are seen as adventurous, daring or disinhibited have the tendency to bully other people. They probably derive stimulation from the thrill of bullying other

individuals usually by way of indulging in a form of violence or disruptive behaviour such as hitting another and watching them moan in pain, taunting and making mockery of another and witnessing how others consider their actions amusing. Since bullies were found not only to aggress physically, but also psychologically; thus the manipulation of others is characteristic of bullying, it presupposes that manipulation might be linked to raising low levels of arousal. In effect, the result of this finding supports the sensation seeking theory (Zuckerman, 1979), which suggests that bullies, being under-aroused, may sensation-seek in order to enhance their natural arousal levels. Aggressive interactions, prompted by bullies, could offer an under-aroused individual the opportunity to raise arousal (sensation) levels.

Another possible explanation for this finding in specific relation to the Ghanaian context can be derived from our school system. Adolescents may seek out sensation-generating activities, such as bullying another (teasing, hitting or humiliating) for rewarding experiences. Since, correlation showed analysis indicated a significant positive relationship between sensation seeking, age and the bullying others; it can be implied that being an adolescent and having an inclination to sensation-seek are risk factors of bullying in Ghana. As indicated earlier, bullying among students in Ghana reaches its peak in adolescence thus when students are about entering senior high schools. Prior to most students entering senior high schools they may have some knowledge of bullying related incidence. Older siblings tend to share such experience with their younger siblings. According to these stories, bullying experiences are at the crust of the unforgettable high school experience. Considerably, most students anticipate these experiences rather feverishly. Armed, with such information most students would approach it with mixed feelings. Therefore, those high on the need for sensation would be more excited and motivated

by such sensation; that even though school authorities prohibit bullying, students would engage in it and even derive satisfaction from not been caught in the act.

A traditional school ritual termed “homoing” usually precedes bullying among these students. “Homoing” refers to the traditional welcome torturing meted out to first year students. Within this context, it is seen as a subculture, which is usually practiced to initiate and prepare them for the life ahead in their secondary education. Students in the higher grades (for instance final year students) would invite these fresh students and hit them, make derogatory remarks about their looks and where they come from and so forth. While they do these, others around tend to join in the humiliation and mockery. The perpetrators more often derive pleasure from the reactions of the victims. These victims may cry and plead to be let alone. Technically, first episodes are not considered bullying by the strictest definition (Farrington, 2009). However, if the particular perpetrator or perpetrators continue to invite the particular target or targets and repeatedly humiliate and harm them then there is clearly a case of bullying. Most students also tend to bully others when they feel bored and also because they know they got away with it the first time. This reinforces the assertion that they bully others for the pleasure of the sensation seeking. It therefore provides room for sensation seekers to exploit the act of bullying.

The finding of the present study is complements research work of Woods et al., (2001), who found a statistically significant difference between mean arousal levels and bullying perpetration of its study sample. Their findings further indicated that bullies had significantly higher mean arousal levels compared with neutral pupils. The results obtained in the present study which indicated that bullies would be high on sensation seeking is also consistent with the findings of Woods and White (2005), who also found that the bully (perpetrator) profile for

direct had the highest levels of arousal (sensation) compared to other participants. Furthermore, present finding is consistent with the findings of Livingstone et al., (2010).

However, the finding is inconsistent with Woods et al., (2005). In Woods et al's study a significant relationship was not found between relational bullying and sensation seeking. Thus, adolescents who were frequently found to engage in relational bullying (isolating another, rumour mongering, manipulating others) did not report significant desire for sensation. However, in the present study, bullying behaviour measure involved a combination of scores on the three types (physical, verbal and relational); the emphasis was not in the forms of bullying but rather occurrence of bullying in general. As already mentioned the systematic manipulation of others is a characteristic of relational bullying (Sutton et al., 1999), and might be expected to be associated with influencing arousal levels. However, in relation to other types of bullying such as "physical", the majority of relational bullying does not include one-on-one involvement, which could imply that relational bullying does not necessarily provide the sensation an under-aroused individual may seek. This result is also not entirely consistent with previous finding of Moir et al. (1995) which did not indicate a link between chronic levels of under-arousal and antisocial behaviour. Their experimental study was done with animals and such studies may be limited with respect to generalisation to humans. This research however, involved adolescents.

Emotional intelligence (EI) and Bullying perpetration

Another major goal in the present study was to examine the predictive relationship between emotional intelligence and bullying perpetration. The results obtained from hierarchical regression supported the prediction that EI would account for significant variance in bullying

behaviour over and above the contribution of age, gender, parental attachment and self esteem. Thus, the prediction that EI would significantly predict bullying was supported. In essence, the present study finding suggests adolescents with a lesser understanding of the emotions of others, may find it difficult to understand the consequences of their actions and not comprehend the adverse impact their bullying behaviour would have on others. Most adolescents may bully other adolescents because they experience neglect, bullying, or other maltreatment at home. This could result in bullies lacking emotional intelligence skills such as the ability to identify, understand and manage emotions in positive ways to relieve stress, communicate effectively, empathize with others, and overcome challenges. Adolescents who bully may often be ignorant of their feelings on a conscious level, and suppose that the only way to feel better about themselves is by hurting and degrading others. The present finding is consistent with studies by Salmivalli et al. (1999) whose findings suggested that adolescents who are low on emotional intelligence (empathy) are more likely to engage in bullying others. The findings were also consistent with the study of, Endresen et al. (2002) who also found that self reported bullying behaviour correlated negatively with empathy; suggesting a link between low emotional intelligence and bullying. Espelage et al. (2004) also found that both bullies reported the lowest level of concern for others and were significantly less likely to be involved with caring acts. The present finding also lends support to the earlier finding by Warden et al., (2003); they also found that prosocial children scored significantly higher than bullies on a measure of empathy. Kokkinos et al., (2012) also noticed a similar observation. They found a significant negative correlation between emotional intelligence and bullying.

Sensation seeking (SS) and victimization behaviour

In this case, the effect of SS on victimization was examined to the extent that low levels of SS were expected to account for a significant variance in victimization behaviour. It was found that SS accounted for a significant variance in victimization behaviour after controlling for age, gender, parental attachment and self esteem. Thus, the prediction that SS would significantly contribute to the variance in victimization behaviour was supported. It was also revealed that sensation seeking and three of the control variables: age, gender and parental attachment were statistically significant predictors of bullying. Correlational analysis showed a positive correlation between SS and victimization behaviour. Thus adolescents who score high on sensation seeking are also more likely to be victims of bullying. This was however unexpected, since victimisation has been consistently found in the literature to be associated with lesser tendencies to sensation-seek. One possibility these findings might be suggesting is that, for some individuals, higher levels of desire to sensation-seek may be associated with higher rates of avoidance behaviours, and that this increases the likelihood of membership in the victims' class. This may be consistent with the arousal theory of behaviour (Eysenck, 1964) which indicates that victims of bullying may naturally have high arousal levels which have been found to be associated with withdrawn, shy, timid, avoidant behaviour and increased anxiety. Assuming that, individuals with high levels of arousal tend to avoid stimulating situations in an involuntary effort to reduce anxiety and escape potential punishment, it is possible that it may result in reasons why such people are usually picked on by others and seen as vulnerable prey for bully victimization.

The finding complements the study of Woods et al., (2005) in which victims of both direct and relational form of bullying had the highest levels of arousal compared to those who were uninvolved in bullying. This result is however inconsistent with the findings of Lovegrove

et al. (2012), who found that a lesser tendency toward sensation seeking was associated with membership in the victims groups. Woods et al., (2001) also reported that victims were less likely to sensation-seek. In these studies, the researchers categorized the participants into distinct bullying groups of bullies, victims and so forth. However, in the present study bullying and victimization was measured on a continuum whereby the participants were not categorised and this may be accountable for the finding.

Emotional intelligence and victimization behaviour

Another goal of the present study was to determine whether Emotional intelligence would account for a significant variance in victimization behaviour after controlling for age, gender, parental attachment and self esteem. The results showed that emotional intelligence did not account for a significant variance in victimization behaviour after controlling for age, gender, parental attachment and self esteem. Thus, the prediction that EI would significantly contribute to the variance in victimization was not supported. However, further analysis using a simple regression showed that EI contributed to the variance in the victimization behaviour (see Appendix F for details). This implies that the variables: age, gender, parental attachment and self esteem might be moderating the relationship between EI and victimization behaviour. These findings suggest that emotional intelligence only would not necessarily predict victimisation without focussing on other variables. Thus the likelihood of an adolescent with low or high EI being a victim of bullying maybe influenced by the adolescent's age, gender and the quality of affectionate relationship that exists between the adolescent and his parents.

The present finding did not support an earlier finding by Endresen et al. (2002), who found a significant negative correlation between self-reported victimization behaviour and empathy; suggesting a link between low emotional intelligence and victimization. It did not also

support the findings of Lomas et al., (2012) who found that among a sample 68 of Australian adolescents students; emotional intelligence significantly predicted the propensity of adolescents been bullied. Furthermore, the present study did not support the finding of Sutton et al. (1999), which suggested that those classified as victims scored significantly higher on the emotion score than a combination group of reinforcers and assistants.

Perhaps, another reason for the present finding can be traced to the assertion that the social context and skills of bullying depend on the ability to understand and manipulate the minds of others. This means possessing a superior theory of mind (Sutton, 2003). Bullies seem to be able not only to spot which of their peers are suitable candidates for victimisation, but also succeed in gaining support from their social environment. Thus, these provide some evidence that aggressive individuals engage in tactical rather than impulsive behaviours. So, the above proposition suggests that given the active nature of bullies in the bullying behaviour, emotional intelligence seems to be of relevance in succeeding at bullying while victimization on the other hand which seems to be passive does not seem to require being emotionally intelligent. Therefore, emotional intelligence seems not to be relevant for the victimization process.

Bullying, Victimization and depression

The effect of bullying and victimization on depression was examined to measure the extent to which the interaction between bullying and victimization was expected to account for a significant variance in depression among adolescents. The results showed that bullying and victimization behaviour did not contribute significantly in variance in depression over and above the variables age, gender, parental attachment, self esteem, sensation seeking and emotional

intelligence. Thus, the prediction that bullying and victimization would significantly predict the variance in depression was not supported. A simple regression analysis was performed to determine if bullying contributed significantly to the variance in depression; bullying perpetration alone did not predict depression (See Appendix G for details). Furthermore, a simple regression was performed to determine if victimization significantly contributed to the variance in depression, the result obtained show that victimization only did not significantly predict depression (see appendix G1 for details).

The results of the presents study is inconsistent with the earlier finding of studies examining the relationship between bullying experience and depression, Kaltiala-Heino et al. (1999), Owusu et al. (2011) and Klomek et al. (2007) which found that depression was reported by boys and girls who both bullied and frequently bullied . In Uba et al. (2009) study depression was found to positively correlate with bullying and victimization. Swearer et al. (2001) also reported that depression was associated with victimization. Fleming et al. (2009) found that victims and perpetrators were more likely to manifest more depressive symptoms

One probable explanation for present finding is that depression is said to because by a multiplicity of factors or variables and mostly it is a combination of two or more factors. Such as biological disposition, academic difficulties, grief, financial hardships, low esteem and even family problems. Therefore exposure to only bullying behaviour may not necessarily predict depression. It could be attributed to the action being anticipated and expected as part of the school experience prior to its commencement by students. According to Aaron Beck's theory on depression; depression is mainly caused by one having a negative feeling of oneself, the world and the future. In Ghana, as this can be linked to the possible explanation for the relationship between sensation seeking and bullying perpetration; adolescents in both first and second cycle

school may have learned that those who bully them may do so simply just for fun and may not necessarily ascribe a malicious intent to it. Consequently, they are not likely to develop negative feelings about the world and their future and may be able to build a psychological boundary or fence which cushions them. For instance involvement in school activities such as club member can also provide emotional support and buffer against feeling depressed.

A further, plausible explanation for this finding, in specific relation to the Ghanaian context may be the parenting style which is more towards hitting and verbal exploitation. Parents often tend to hit their children upon the least provocation. Most children are exposed to violence and aggressive related behaviours from parents and society. Religious dogma and societal norms support corporal punishment, under the axiom that 'spare the rod and spoil the child'. In most households when children are being "disciplined" for wrongdoing, smacking is quite common. Therefore when an adolescent enters school and is exposed to bullying and victimisation, they tend to see this as ordinary or normal behaviour. The Ghanaian sub-cultural environmental and religiosity may possibly explain the present study findings. It is quite possible that within the subculture domain of bullying in the Ghanaian context, in schools students indirectly practice some form of inoculation as a way of surviving the ordeal of bullying. It is possible that students may not even appraise and perceive bullying as a stressor to facilitate its effect.

The present finding was partially supported by an earlier finding of Juvonen et al. (2003) which revealed that regardless of the increased conduct problems bullies presented; they did not indicate any signs of depression. The present finding was consistent with the finding of Camodeca et al. (2005) which did not indicate an association between depression and perpetration and victimisation among Dutch adolescents.

Bullying, Victimization behaviour and Suicide ideation

Bullying and victimization did not significantly predict suicidal ideation among adolescents, thus the prediction was not supported. Further analysis was carried out to determine if bullying perpetration only could predict suicidal ideation; bullying significantly predicted suicidal ideation (see appendix G for details). On the other hand victimization only was not shown to significantly predict by suicidal ideations (see Appendix H for details).

A possible explanation for this finding relative to the Ghanaian context might be attributable to the student's perception of bullying and victimisation experiences. For example, perceptions or attitudes held by participants may not influence them fundamentally to appraise the actions and the effects of bullying as a stressor which may necessarily lead to experiencing suicide thought. These adolescents also again hold the perception that bullying and victimisation are merely a subculture within the educational system and this may lead them to believe that the experience is time bound and that it only holds for a short while. The victim may endure; with the belief of being in a position to bully others in the future. They also believe that with time they may also be able to strike their chords of revenge when they progress to higher grades. This perception may feed the interpretation of events thereby offering an avenue of coping.

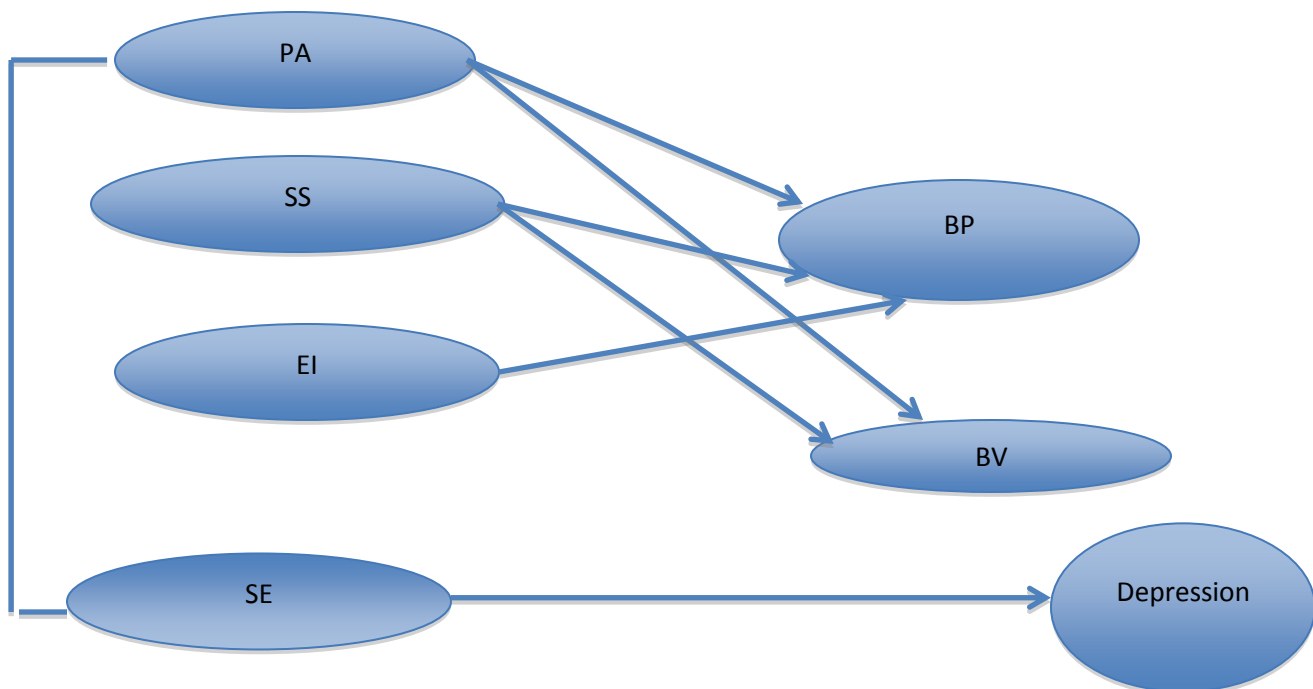
A further explanation may be that the Ghanaian adolescents have better coping strategies to protect them from the negative effect of peer victimization. Some adolescents may be more resilient to victimization due to their personal characteristics. Likewise, some environmental factors such as having a best friend or great family support can decrease the risk for suicidal thoughts associated with victimization. In addition, research (Hoover et al., 1996) shows that support from teachers can also increase general well being in the classroom. It may

be that victims have supportive friends, family, and teachers who can be great buffers against all negative effects of victimization.

The result of the present study was not in support of the findings of Klomek et al. (2007), who found that frequent exposure to victimization or bullying among students was related to high risks of suicide ideation, and suicide attempts. The finding of the present study is however, in support of an earlier finding of Klomek et al. (2011); which suggested that involvement with bullying during high school years, whether as perpetrator, victim, or bully/victim is not a risk indicator for suicide.

Conceptual framework based on current results

Figure 1.2 Conceptual framework of risk factors and psychological outcomes among adolescents in Ghana:



Based on the findings in the present study modifications were made to the risk factors and psychological outcome model of bullying. The modified Fig. 1.2 represents those variables from the original model that were found to have significant and relationships with bullying and victimisation behaviour.

From on the results and findings in the present study, it is evident sensation seeking (SS) among adolescents significantly predicts bullying (BP) and victimisation behaviour (BV). Parental attachment (PA) which was partialled out was also found to predict both bullying (BP) and victimisation behaviour (BV) . Emotional intelligence (EI) was found to significantly predict bullying perpetration (BP) but not victimization (BV). Bullying and victimisation were not found to predict both depression and suicidal ideation. Although Sensation seeking and self esteem (SE) were partialled out (see fig. 2) with respect to bullying (perpetration and victimisation) they were found to predict depression.

Implications for Research, Theory, Practice and Policy

The first aim of the present study was to examine the likelihood of sensation, emotional intelligence, parental attachment and self esteem of predicting bullying behaviour. In line with this aim, findings of the present study confirmed that sensation seeking significantly predicts bullying and victimisation behaviour. Thus, if sensation seeking predicts bullying and victimisation among adolescent students then school authorities and parental guidance should be directed to show interest in activities that are designed at regulating sensation seeking. According to Williams (2011) techniques could be employed to aid the reduction of risky sensation seeking. These include the introduction of programmes such as relaxation techniques,

use of self talk, problem solving techniques, and strategies for coping with failure (which would eventually result in a satisfactory outcome), may help to reduce risky sensation seeking (Hodge, McMurrin, & Hollin, 1997). In addition, the creation of challenges and expectancy within a non-aggressive environment would significantly provide the under aroused adolescent a channel for their energy release, better known as catharsis. Novelty and uncertainty would also raise the level of excitation, and provide a means for arousal levels to be lifted without harming others. These measures would allow adolescents to deal with desire to seek sensation within a structured environment which could be predictably controlled.

Workshops and seminars for parents and adolescents should be organised and hosted by all relevant educational stakeholders such as school personnel, academic and health professionals on the nature of bullying behaviour and sensation (arousal) seeking, and strategies to reduce behavioural problems. The concept of raising and lowering arousal levels within the confines of one classroom appears a difficult challenge. However, it could be achieved within a calm, stable and structured environment. The introduction of immediate and extended goals into teaching practice could aid both the over- and under-aroused adolescents. Well organized classes should be instituted for students to be stimulated (for example, sports lessons), and where the degree of participation is varied, this would allow adolescents to control their spaces in order to manage their optimal level of arousal.

The present study provides further evidence on the relationship between emotional intelligence and bullying perpetration behaviour. The present study suggests that adolescents with better developed emotional intelligence skills are less likely to become bullies, therefore behaviours which may have implications for managing bullying and peer victimisation within schools should be encouraged. It seems that children who have the opportunity to develop their

fellow feeling and emotional skills will be less likely to act as bullies in the future. Conclusively, this indication is important both for theoretical and for applied reasons. At the theoretical level, it offers a more comprehensive understanding of the reciprocal nature of these two constructs together with other factors (age, gender and parental attachment) which may be more critical in the relationship. At the applied level, this study shows the necessity for teachers, policy-makers and mental health professionals to emphasize the promotion of emotional education for children and adolescents.

Measures of Emotional Intelligence (EI) may be utilised to identify students who show less developed EI competencies, which may allow for more targeted, accurate or timely intervention to protect students from the potential harmful consequences that are associated with exposure to bullying. This is very important in the intervention programmes designed for prevention purposes. It may provide an opportunity to improve anti-bullying programs in the educational setting and allow teachers to move from a 'policing' position and assume a more proactive posture of predicting and intervening even before the antisocial behaviours are exhibited. (Whitted & Dupper, 2005). Furthermore, children who are already acting as bullies may need to participate in programmes of emotional skills development in order to help them cut back on this harmful habit. If emotional intelligence is developed (Hansen, Gardner, & Stough, 2007; Ulutas & Omeroglu, 2007) it may be viable to develop anti-bullying programs that focus on the development of emotional intelligence in both bullies and in those who are at risk of being bullied. Emotional Intelligence has relevance for success in many areas of life, not only antisocial behaviours in educational settings (Goleman, 1995). The development of Emotional Intelligence competencies in students may therefore not only assist in the reduction of bullying

behaviours in schools but may also assist to better endow students to be successful in other facets of life.

Self esteem was found to significantly predict depression in this study. So it can no longer be absolutely held that ‘sticks and stones may break one’s bones, but words will never harm one.’ Unquestionably words do harm others and the words of mockery in the form of bullying can break the soul, affecting one’s sense of optimism. Though bullying and victimisation could not predict depression, self esteem and sensation seeking were able to do so. This finding was not unexpected. Thus although bullying and victimisation did not predict depression and suicidal ideations; a broken sense of self would be inimical to the general wellbeing of an adolescent which could lead to problems in adulthood. Significantly, all agents of socialization have an overwhelming task to play in shaping up a positive self-image of the adolescent. This has implication for parents as primary stakeholders in healthy child development. Parents and caretakers should continually reinforce appropriate and desirable behaviours with unconditional positive regard as depicted by Carl Rogers. This informs healthy self-esteem development. Students should also be taught self-efficacy and assertiveness techniques so as to help them have the confidence to solve and deal with problems when they occur. Once they can identify potential danger signs of bullying and victimization then they can have the skills or competencies to deal with and prevent associated anger, anxiety and depressive episodes. Students should also be educated on sensation seeking and its associated stimulus control techniques. The role of positive stimulus motivation such as hiking and paragliding, a sport which could be encouraged to help high sensation seekers (students) to channel their urges into appropriate outlets which would be beneficial to themselves and the society at large.

Finally, at a policy level, this study suggests the need to have school psychologist in our various schools in Ghana. The role of psychologists cannot be underrated in drawing up context-specific intervention programmes to be integrated into the school curriculum for maladaptive behaviours such as bullying. Most first and second cycle schools in Ghana do not have school psychologists in their staff membership. School psychologists would help to identify adolescents who may for instance be high on sensation seeking and engage them on the effects of seeking sensation through inappropriate means. They could identify and help children with attachment and self esteem problems deal with the daily psychological hassles associated with peer relations. This would be very beneficial since school psychologists, in both their professional training and responsibilities to the school, would be positioned to play a substantial role in prevention and intervention efforts. Studies (Hawker et al., 2000; Hazler, 1996 Hoover et al., 1996; Lomas et al., 2012) have indicated that school psychologist play a key role in helping to prevent and control bullying among adolescent. Therefore schools and to a larger extent the Ministry of Education in Ghana could make it a policy to have school psychologist who would be instrumental in handling children who are at risk of bullying and or being victimised.

Suggestions and Recommendations for Further Research

The present study demonstrates the necessity of investigating bullying and bully-victimization in general. Continued research in this area is essential so that we may more fully comprehend bullying and bully-victimization in adolescence and across the life span. It would be beneficial to assess whether the proposed model for the present study holds for both physical and relational bullying, which have been found to be related, yet distinct forms of bullying. Given the relatively small sample size of this study, the model should be reassessed to increase confidence in its ability to predict bullying behaviour.

Future research should also address the potential conceptual and measurement issues surrounding the intention to bully construct through categorisation of variable. That is future studies should categories the participants into bullies, victims, bully-victims and those who are uninvolved. Future study should explore study variables from a pathological perspective. This can be carried out by instituting a context-specific clinical intervention and observing its post test effects on the study sample.

The statistical requirements and assumptions associated with Linear Multiple Regression required the removal of the 17 outliers from the analysis. However, from a clinical and individual differences perspective, it would be beneficial in the future to examine the characteristics and scores of the 17 deleted outliers. This would allow for an investigation into the exact nature of their differences from the remaining adolescents in the sample, which may better inform practice and intervention when working with a wide range of adolescents. Also future research could look at the effect of witnessing a bullying behaviour on the observer since most of the bullying acts are carried out in the presence of others.

Considering the complicated nature of bullying behaviour in school, it is important to assess the risk factors that contribute to this behaviour across multiple ecologies. This can be achieved through multiple methodologies (e.g., teacher reports, peer nomination reports), and behavioural observation, in addition to self-report surveys, the most commonly used assessment tool (Espelage & Swearer, 2003). The use of ecologically-based assessment tools that draw upon multiple methodologies are essential for effectively implementing and evaluating bullying prevention and intervention programs. These tools can assess and promote problem-solving, empathy, and social skills among bully victims, perpetrators, and bystanders, but will also assess key aspects of the larger environments of schools, neighbourhoods and other contexts.

Limitations of the Study

Despite attempts to conduct a study with as many implications for the literature as possible, some important methodological limitations concerning the sample and measures should also be acknowledged. Specifically, the sample used in this study, did not include respondents from high schools in every region of Ghana. Furthermore, the study employed a relatively smaller sample. Future studies should employ a larger sample size to help in the generalizability of findings.

Secondly, the research relied solely on the use of self-report questionnaires from adolescents to measure the study variables. Even though, this methodology has been used extensively in this area of research and appears to yield reliable, valid, and informative results that are comparable to peer reports (Crick & Bigbee, 1998); longitudinal studies could be employed in studying bullying dynamics in Ghana. The present study could not meet this limitation because of time constraints and the financial cost involved. Future studies however, should consider using a longitudinal design and or a multi-informant approach. Since, a study that surveys and interviews not only students, but their parents, teachers, staff, and administrators regarding the negative impact of bullying experiences would help to provide a more in-depth understanding of bullying behaviours. Qualitative approaches should be employed to provide a rich data on individual experiences to bullying and victimization. Although this study originally sought to collect data from parents; it was fraught with challenges such as student's inability to return questionnaires given to parents and or students failing to deliver the questionnaires. It is suggested that future studies attempt collecting data for instance during Parent Teachers Association (PTA) meeting or during Open Days. This could afford the opportunity through a personal contact, to highlight and the benefits the parents and their wards would derive from the

study. This would provide an avenue for a more holistic and culture-specific measures to be employed to accurately test the existence of bullying in Ghanaian school settings.

Another limitation of this study is that, a school and not a clinical sample was used, and therefore, it did not include extreme cases of bullying. As a result, the conclusions regarding the found relationships should be limited to mild bullying activity, or even to bullying tendency. It is quite possible that in more serious incidents, the relationship between bullying, victimisation and predictive and outcome correlates may be different from what is reported here. Finally, even though sensation seeking, emotional intelligence and bullying show statistical significance in predicting each other, it should be interpreted with caution due to the small percentage of variance explained by the two constructs.

Conclusion

As predicted, although the variance was very small bullying was predicted by sensation-seeking and emotional intelligence after controlling for age, gender, self-esteem, and parental attachment. Overall sensation seeking contributed 4.5% of the variance in bullying behaviour, and emotional intelligence contributed 1.6% of the variance in bullying behaviour. Also, victimization was predicted by sensation seeking after controlling for age, gender, self-esteem and parental attachment. Overall, sensation seeking contributed 3.7% of the variance in victimization behaviour. Based on the results of the present study, emotional intelligence did not significantly predict victimization after controlling for age, gender, self-esteem and parental attachment. Interestingly, the combination of bullying and victimization behaviour did not

contribute significantly to the variance in depression. The combination of bullying and victimization behaviour did not also contribute significantly to the variance in suicidal ideation as well. The fact therefore is that since the variables studied accounted for very small variance there are more potent antecedents that other researchers interested in the subject could investigate.

In a nutshell, the current findings reinforce the need to broaden our investigations of bullying and victimization in Ghana especially considering the fact the amount of variance contributed by the study variables were small. The results lend support to investigating these phenomena from an alternative theoretical framework in an attempt to add to our cultural understanding, prediction, and control of bullying and victimization behaviour.

References

- Abela J.R.Z., Hankin B.L. (2008). Cognitive vulnerability to depression in children and adolescence: A developmental psychopathology approach. In: Abela J.R.Z., Hankin BL, editors. *Handbook of child and adolescent depression*. NY: Guilford Press
- Abraham H. Maslow: Toward a psychology of being (1955). In Wikipedia: The free encyclopedia. Retrieved May 20, 2012, from <http://www.panarchy.org/maslow/being.1955.html>
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: Assessed in the strange situation and at home*. Hillsdale, NJ: Erlbaum.
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of Attachment: A Psychological Study of the Strange Situation*. Hillsdale, NJ: Erlbaum.
- Ainsworth, M. D. S., & Bowlby, J. (1991), An ethological approach to personality development. *American Psychologist*, 46, 331-341.
- Andreou, E. (2001). Bully/victim problems and their association with coping behaviour in conflictual peer interactions among school-age children. *Educational Psychology*, 21(1), 59-66.
- Arora, C. M. J., & Thompson, D. A. (1987). Defining bullying for a secondary school. *Education and Child Psychology*, 4, 110-120.
- Astington, J. W. & Dack, L. A. (2008). Theory of mind. In M. M. Haith & J. B. Benson (Eds.), *Encyclopedia of infant and early childhood development*, 3: 343-356.
- Austin, S., & Joseph, S. (1996). Assessment of bully/victim problems in 8 to 11 year olds. *British Journal of Educational Psychology*, 66, 447-456.

- Bagley, C. & Mallick, K. (2001). Normative Data and Mental Health Construct Validity for the Rosenberg Self-esteem Scale in British Adolescents. *International Journal of Adolescent and Youth*, 9: 17-26.
- Baldry, A. C., & Farrington, D. (2000). Bullies and delinquents: personal characteristics and parental styles. *Journal of Community & Applied Social Psychology*, 10 (1), 17-31.
doi: 10.1002/(SICI)1099-1298(200001/02)10:1<17
- Baron-Cohen, S, (1995) *Mindblindness: an essay on autism and theory of mind*. MIT Press/Bradford Books.
- Baron-Cohen, S, & Hammer, J, (1996) *Parents of children with Asperger Syndrome: what is the 35 cognitive phenotype?* Unpublished ms, University of Cambridge.
- Baron-Cohen, S., Wheelwright, S., Stott, C., Bolton, P., & Goodyer, I. (1997). Is there a link between engineering and autism? *Autism: An International Journal of Research and Practice*, 1, 153-163.
- Beale, A. V., & Scott, P. C. (2001). Bullybusters: Using drama to empower students to take a stand against bullying behavior. *Professional School Counseling*, 4, 300-306.
- Beran, T. T., & Li, Q. (2007). The relationship between cyberbullying and school bullying. *Journal of Student Wellbeing*, 1(2), 15-33.
- Birleson, P. (1981). The validity of depressive disorder in childhood and the development of a self-rating scale: a research report. *Journal of Child Psychology and Psychiatry*.22 (1): 73–88. doi: 10.1111/j.1469-7610.1981.tb00533.x

- Bjorklund, D. F. (2005). *Children's thinking: Cognitive development and individual differences* (4th ed.). Belmont, CA: Thomson.
- Björkqvist, K. (1992). New trends in the study of female aggression. In K. Björkqvist and P. Niemelä (Eds.), *Of mice and women: Aspects of female aggression*(pp. 3-16). San Diego, CA: Academic Press.
- Bosworth, K., Espelage, D. L., & Simon, T. R. (1999). Factors associated with bullying behavior in middle school students. *Journal of Early Adolescence, 19*,341–362.
doi:10.1177/0272431699019003003
- Boulton, M. J., & Smith P. K. (1994). Bully/victim problems in middle school children: Stability, self-perceived competence, peer acceptance, *British Journal of Developmental Psychology, 12*, 315-325.
- Bowlby, J. (1969/1982). *Attachment and loss: Vol. 1. Attachment* (2nd ed.). New York: Basic Books.
- Bowlby, J. (1973). *Attachment and loss, Vol. 2: Separation*. New York: Basic Books.
- Branden, N. (1969). *The Psychology of Self-Esteem*. Los Angeles: Nash Publishing.
- Brewster, C., & Railsback, J. (2001). *Supporting beginning teachers: How administrators, teachers, and policy makers can help new teachers succeed*. Northwest Regional Education Laboratory. Portland, OR
- Brown, D.W., Riley, L., Butchart, A. & Kann, L. (2008) Bullying among youth from eight African countries and associations with adverse health behaviors. *Pediatric Health 2*, 289-299.
- Bryant, B.K. (1982). An index of empathy for children and adolescents. *Child Development, 53*, 413–425.

- Buss, A. H., & Perry, M. (1992). The aggression questionnaire. *Journal of Personality and Social Psychology*, *63*, 452-459.
- Callaghan, S. & Joseph, S. (1995). Self-concept and peer victimisation among Schoolchildren. *Personality and Individual Differences*, *18*(1), 161-163.
- Camodeca, M., & Goossens, F. A. (2005). Aggression, social cognitions, anger and sadness in bullies and victims. *Journal of child psychology and psychiatry and allied disciplines*. *46*(2)186-197.
- Carlyle, K.E., & Steinman, K.J. (2007). Demographic differences in the prevalence, co-occurrence, and correlates of adolescent bullying at school. *Journal of School Health*, *77*, 623-629.
- Carney, J. V. (2000). Bullied to death: Perceptions of peer abuse and suicidal behavior during adolescence. *School Psychology International*, *21*, 213–223.
- Carol, E.N. & Zuckerman, M. (1977). Psychopathology and sensation seeking in "downers," "speeders," and "trippers": A study of the relationship between personality and drug of choice. *International Journal of Addiction* *12*: 591-601.
- Cohn, A., & Canter, A. (2003). *Bullying: Facts for Schools and Parents*. National Association of School Psychologists . Retrieved from <http://www.naspcenter.org>.
- 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, *25*(2), 65–83. doi:10.1037/a0020149
- Connor, D. F. (2002). *Aggression & antisocial behaviour in children and adolescents: research and treatment* . London: The Guildford Press

Coren, S. (1999). Arousal predisposition as a predictor of antisocial and delinquent behaviour.

Personality and Individual Differences, 27, 815–820.

Coren, S., & Mah, K. B. (1993). Prediction of physiological arousability: a validation of the

arousal predisposition scale. *Behaviour Research*, 31(2), 215–219.

Craig, W. M., & Pepler, D. J. (2003). Identifying and targeting risk for involvement in bullying and

victimization. *Canadian Journal of Psychiatry*, 48, 577-582.

Crick, N. R., & Bigbee, M. A. (1998). Relational and overt forms of peer victimization: A multi-

informant approach. *Journal of Consulting and Clinical Psychology*, 66, 337–347.

Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information-

processing mechanisms in children's social adjustment. *Psychological Bulletin*, 115, 74–

101.

Cummings-Robeau, T. L., Lopez, F. G., & Rice, K. G. (2009). Attachment-related predictors of

college students' problems with interpersonal sensitivity and aggression. *Journal of Social and Clinical Psychology*, 28, 364-391.

Davies, M., & Cunningham, G. (1999). Adolescent parasuicide in the Foyle area. *Irish Journal of*

Psychological Medicine, 16, 9-12.

Duncan, R. (2011). Family relationship of bullies and victims. In D.L. Espelage & S.M.

Swearer, (Eds.). *Bullying in North American schools* (2nd edition) (pp. 191-204). NY:

Routledge.

Egan, S. & K.; Perry, D. G. (1998). Does low self-regard invite victimization? *Developmental*

Psychology, 34(2), 299-309. doi: 10.1037/0012-1649.34.2.299.

Eisenberg, N., & Miller, P.A. (1987). The relation of empathy to prosocial and related behaviors.

Psychological Bulletin, 94, 100-131.

- Eisert, D., & Jensen, M. K. (2003). *Victimization of girls in American society*. Institute on Violence and Destructive Behavior. University of Oregon. Eugene
- Eliot, M., & Cornell, D. (2009). Bullying in middle school as a function of insecure attachment and aggressive attitudes. *School Psychology International, 30*, 201-214.
- Endresen, I.M., & Olweus, D. (2002). Self-reported empathy in Norwegian adolescents: Sex differences, age trends, and relationship to bullying. In A.C. Bohart & D.J. Stipek (Eds.), *Constructive and destructive behaviour: Implications for family, school, and society* (pp. 147-165). Washington, DC: American Psychological Association.
- Espelage, D., & Low, S.M. (2012). Bullying among children and adolescents: Social-emotional learning approaches to prevention. In K. Nader (Ed.), *School Rampage Shootings and Other Youth Disturbances: Early Preventive Interventions* (pp. 205-219). New York: Routledge.
- Espelage, D. L., Mebane, S., & Adams, R. (2004). Empathy, caring, and bullying: Toward an understanding of complex associations. In D. L. Espelage & S. M. Swearer (Eds.), *Bullying in American schools: A social ecological perspective on prevention and intervention* (pp. 37-61). Mahwah, NJ: Erlbaum.
- Espelage, D. L., & Swearer, S. M. (2003). Research on school bullying and victimization: What have we learned and where do we go from here? *School Psychology Review, 32*, 365-384.
- Espelage, D. L., & Swearer, S. M. (2008). Current perspectives on linking school bullying research to effective prevention strategies. In T. W. Miller (Ed.), *School Violence and Primary Prevention* (pp. 335-353). Springer Press, Inc.
- Eysenck, H. J. (1964). *Crime and personality*. London: Methuen.
- Eysenck, H. J., & Gudjonsson, G. H. (1989). *The causes and cures of criminality*. London: Plenum Press.

- Farrington, D. (1993). "Understanding and preventing bullying." in M. Tonry (ed.), *Crime and Justice: A Review of Research*, Vol. 17. Chicago: University of Chicago Press.
- Farrington, D.P. (2009). Conduct disorder, aggression and delinquency. In R.M. Lerner & L. Steinberg (Eds.), *Handbook of Adolescent Psychology* (3rd ed.). Hoboken, NJ: Wiley (in press)
- Feshbach, N.D., & Feshbach, S. (1982). The relationship between empathy and aggression in two age groups. *Developmental Psychology*, 1, 102–107.
- Feshbach, S., & Zagrodzka, J. (1997). *Aggression: Biological, developmental, and social perspectives*. New York: Plenum Press
- Fleming, L., & Jacobsen, K. (2009). Bullying and symptoms of depression in Chilean middle school students. *Journal of School Health*, 79(3), 130-137.
- Forrest, S., Eatough V., & Shevlin, M. (2005). Measuring adult indirect aggression: The development and psychometric assessment of the indirect aggression scales. *Aggressive Behaviour*, 31, 84-97.
- Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology*, 78, 350-365.
- Georgiou, St. & Stavrinides, P. (2012). Social-psychological profiles of early adolescents involved in bullying activities. *International Journal of Criminology and Sociology*, 1, 60-68.
- Gini, G. (2006). Social cognition and Moral Cognition in bullying: what's wrong? *Aggressive Behaviour*, 32, 528 – 539.

- Gini, G., & Pozzoli, T. (2009). Association between bullying and psychosomatic problems: a meta-analysis. *Pediatrics*, *123*(3), 1059–1065. doi: 10.1542/peds.2008-1215
- Goleman, D. (1995). *Emotional intelligence: Why it can matter more than IQ*. New York: Basic Books.
- Goldstein, S., Young, A., & Boyd, C. (2008). Relational aggression at school: Associations with school safety and social climate. *Journal of Youth and Adolescence*, *37*, 6, 641-654.
- Gumpel, T. P. (2008). Behavioral disorders in the school participant roles and sub-roles in three types of school violence. *Journal of Emotional and Behavioral Disorders*, *16*, 145–162. doi:10.1177/1063426607310846
- Hansen, K., Gardner, L., & Stough, C. (2007). Improving occupational stress through emotional intelligence development. *Organizations and People*, *14* (2), 70–75.
- Harter, S. (1979). *Perceived Competence Scale for Children Manual*. Form O: Denver, University of Denver.
- Harter, S. (1982). The perceived competence scale for children. *Child Development*, *53*, 87-97
- Harter, S. (1985). *Manual for the Self-Perception Profile for Children*. Denver, CO: University of Denver.
- Hawker, D. S. J., & Boulton, M. J. (2000). Twenty years' research on peer victimization and psychosocial maladjustment: A meta-analytic review of cross-sectional studies. *Journal of Child Psychology and Psychiatry*, *41*, 441–455.
- Hazler, R. J. (1996). *Breaking the cycle of violence: Interventions for bullying and victimization*. Washington, DC: Accelerated Development
- Healy, D. (1997). *The Antidepressant Era*. Cambridge: Harvard University Press
- Hodge, J. E., McMurran, M., & Hollin, C. R. (1997). *Addicted to crime?* . Chichester: Wiley.

- Hoover, J. H., & Oliver, R. O. (1996). *The bullying prevention handbook: A guide for principals, teachers, and counselors*. Bloomington, IN: National Educational Service.
- Humphrey, N. (1984). *Consciousness Regained*. Oxford University Press.
- Ireland, J. L. & Power, C. L. (2004). Attachment, emotional loneliness, and bullying behavior: A study of adult and young offenders. *Aggressive Behavior*, 30, 298-312.
- Johnson, D., & Lewis, G. (1999). Do you like what you see? Self-perceptions of adolescent bullies. *British Educational Research Journal*, 25(5), 665–677.
- Juvonen, J., Graham, S., Schuster, M. (2003). Bullying among young adolescents: The strong, weak, and troubled. *Pediatrics*, 112, 1231-1237.
- Juvonen, J., & Gross, E. F. (2008). Extending the school grounds?-Bullying experiences in cyberspace. *Journal of School Health*, 78(9), 496-505.
- Juvonen, J., & Ho, A. (2009). Social motives underlying antisocial behavior across middle school grades. *Journal of Youth and Adolescence*. doi:10.1007/s10964-008-9272-0.
- Kaltiala-Heino R, Rimpelä M, Marttunen M, Rimpelä A, Rantanen P.(1999). Bullying, depression, and suicidal ideation in Finnish adolescents: school survey. *British Medical Journal*, 319 (7206):348-51.
- Kaukiainen, A., Björkqvist, K., & Ahlbom, A. (1999). The relationships between social intelligence, empathy, and three types of aggression. *Aggressive Behavior*, 25, 81-89.
- Kaukiainen, A, Salmivalli C, Lagerspetz K, Tamminen M., Vauras M., Mäki H. & Poskiparta E. 2002. Learning difficulties, social intelligence, and self-concept: connections to bully-victim problems. *Scandavian Journal of Psychology*, 43(3):269-78.
- Kärnä, A., Voeten, M., Little, T. D., Poskiparta, E., Alanen, E., Little, T. D. & Poskiparta, E. (2011). *Journal of Consulting and Clinical Psychology Going to Scale* : A Nonrandomized

Nationwide Trial of the KiVa Antibullying Program for Grades 1 – 9 Going to Scale□ : A Nonrandomized Nationwide Trial of the KiVa.

- Kilpatrick, D.G.; Sutker, P.B. Smith, A.D. (1976) Deviant drug and alcohol use: The role of anxiety, sensation seeking, and other personality variables. In: Zuckerman, M., and Spielberger, C.D., eds. *Emotions and Anxiety: New Concepts, Methods, and Applications*. Hillsdale, NJ: Erlbaum. pp. 247-278.
- Kim, Y.S., Koh Y.J., & Leventhal, B.L. (2004). Prevalence of school bullying in Korean middle school students. *Archives of Pediatric Adolescent Medicine*, 158,737-741.
- Kim, Y. & Leventhal, B. (2008). Bullying and Suicide. A review. *International Journal of Adolescent Medicine and Health*, 20(2),133–154.
- Klomek, A. B., Marrocco, F., Kleinman, M., Schonfeld, I. S. & Gould, M. S. (2007). Bullying, Depression, and Suicidality in Adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, 46, (1): 40-49. doi:10.1097/01.chi.000024223784925.18
- Klomek, A. B., Sourander, A., Kumpulainen, K., Piha, J., Tamminen, T., Moilanen, I. (2008). Childhood bullying as a risk for later depression and suicidal ideation among finnish males. *Journal of Affective Disorders*, 109(1-2), 47-55. doi:10.1016/j.jad.2007.12.226
- Klomek, A. B., Kleinman M, Altschuler, E., Marrocco, F., Amakawa, L. & Gould, M. S. (2011). High school Bullying as a Risk for Later Depression and Suicidality. *Suicide Life Threat Behaviour*. 41(5): 501–516. doi: 10.1111/j.1943-278X.2011.00046.x

- Knyazev, G. G., Slobodskaya, H. R., & Wilson, G. D. (2002). Psychophysical correlates of behavioural inhibition and activation. *Personality and Individual Differences*, 33, 647–660.
- Kochenderfer, B. J., & Ladd, G. W. (1996). Peer victimization: Cause or consequence of school maladjustment? *Child Development*, 67(4), 1305-1317.
- Kõiv, K. (2012). Attachment styles among bullies, victims and uninvolved adolescents. *Psychology Research*, 2(3), 160 - 165.
- Kokkinos, C. M., & Kipritsi, E. (2012) The Relationship between Bullying, Victimization, Trait Emotional Intelligence, Self-Efficacy and Empathy among Preadolescents. *Social Psychology of Education: An International Journal*, 15 (1) 41-58
- Kokkinos C. M., & Panayiotou, G. (2004). Predicting Bullying and Victimization Among Early Adolescents: Associations With Disruptive Behavior Disorders, 30, 520–533
- Kovacs, M. (1985). The Children's Depression Inventory (CDI). *Psycho-pharmacology Bulletin*, 21, 995–998.
- Kovacs, M. (1992). Children's Depression Inventory. North Tonawanda, NY: Multi-Health Systems.
- Kyriakides, L., Kaloyirou, C., & Lindsay, G. (2006). The British Psychological Society An analysis of the Revised Olweus Bully / Victim Questionnaire using the Rasch measurement model. *The British Psychological Society*, 781–801
- Land, D. (2003). Teasing apart secondary students' conceptualizations of peer teasing, bullying, and sexual harassment. *School Psychology International*, 24, 147–165. doi: 10.1177/0143034303024002002

- Lee, J. (2011, March 10). President Obama & the First Lady at the White House conference on bullying prevention. Retrieved from:
<http://www.whitehouse.gov/blog/2011/03/10/president-obama-first-lady-white-house-conference-bullying-prevention>
- Li, Q. (2010). Cyberbullying in high schools: A study of students' behaviours and beliefs about this new phenomenon. *Journal of Aggression, Maltreatment & Trauma, 19*(4), 372-392.
- Lieberman, M. D., & Rosenthal, R. (2001). Why introverts can't always tell who likes them: multitasking and nonverbal decoding. *Journal of Personality and Social Psychology, 80*(2), 294–310.
- List of Senior High Schools within the Accra Metropolitan Assembly. Retrieved from:
<http://www.ghanaeducationdirectory.com/index.php>
- Livingstone, S., Haddon, L., Görzig, A., & Ólafsson, K. (2011). Risks and safety on the internet: *The perspective of European children. Full Findings*. LSE, London: EU Kids Online.
- Livingstone, S., & Helsper, E. J. (2007). Taking risks when communicating on the Internet: the role of offline social-psychological factors in young people's vulnerability to online risks. *Information, Communication & Society, 10*(5), 619–644
- Lomas, J., Stough, C., Hansen, K., & Downey, L. A. (2012). Brief report □ : Emotional intelligence victimisation and bullying in adolescents. *Journal of Adolescence, 35*(1), 207–211
- Lopes, P. N., Salovey, P., & Straus, R. (20 03). Emotional intelligence, personality, and the perceived quality of social relationships. *Personality and Individual Differences, 35*, 641 – 658.

- Lovegrove, P. J., Henry K. L. & Slater M. D. (2012). Examination of the Predictors of Latent Class Typologies of Bullying Involvement among Middle School Students. *Journal of School Violence*. 11(1): 75–93. doi: 10.1080/15388220.2011.631447
- Lovett, J.B., & Sheffield, A.R. (2006). Affective empathy deficits in aggressive children and adolescents: A critical review. *Clinical Psychology Review*, 27, 1–13.
- Luebbers, S., Downey, L. A., & Stough, C. (2007). The development of an adolescent measure of EI. *Personality and Individual Differences*, 42,999-1009.
- Macklem, G. L. (2003). *Bullying and teasing: Social power in children's groups*. New York: Kluwer Academic/Plenum.
- Marini, Z.A., Dane, A., Bosacki, S., & Ylc-Cura. (2006). Direct and indirect bully-victims: Differential psychosocial risk factors associated with adolescents involved in bullying and victimization. *Aggressive Behavior*, 32, 551-569.
- Marsh, H. W., Nagengast, B., Morin, A. J. S., Parada, R. H., Craven, R. G., & Hamilton, L. R. (2011a). Construct Validity of the Multidimensional Structure of Bullying and Victimization : An Application of Exploratory Structural Equation Modeling, 103(3), 701–732
- Marsh, H. W., Nagengast, B., Morin, A. J. S., Parada, R. H., Craven, R. G., & Hamilton, L. R. (2011b). Construct Validity of the Multidimensional Structure of Bullying and Victimization : An Application of Exploratory Structural Equation Modeling, 103(3), 701–732
- Marsh, H. W., Parada, R. H., Yeung, A. S., & Healey, J. (2001). Aggressive school troublemakers and victims: A longitudinal model examining the pivotal role of self-concept. *Journal of Educational Psychology*, 93,411–419

- Maslow, A. (1943). Conflict, Frustration and the Theory of Threat. *Journal of Abnormal and Social Psychology*, 381: 81-86
- Matthews, G., & Deary, I. J. (1998). Personality traits. Cambridge: Cambridge University Press.
- Mayer, M. J., & Cornell, D. G. (2010). New perspectives on school safety and violence prevention. *Educational Researcher*, 39, 5–6.
- Mayer, J. D., Roberts, R. D., & Barsdale, S. G. (2008). Human abilities: emotional intelligence. *Annual Review of Psychology*, 59 , 507– 536.
- Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 3–31). New York: Basic Books.
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2004). Emotional intelligence: theory, findings, and implications. *Psychological Inquiry*, 15,197 – 215.
- Meier, E. & Moy, C. (1999). Social Classifications – a new beginning or more of the same? *Journal of the Market Research Society*. 41 (2).
- Merrell, K. W., Gueldner, B. A., Ross, S. W., & Isava, D. M. (2008). How effective are school bullying intervention programs? A Meta-Analysis of Intervention Research. *School Psychology Quarterly*, 23(1), 26-42. doi:10.1037/1045-3830.23.1.26
- Mikulincer, M. (1998). Adult attachment style and individual differences in functional versus dysfunctional experiences of anger. *Journal of Personality and Social Psychology*, 74, 513-524.
- Mishna, F., & Alaggia, R. (2005) .Weighing the risks: A child’s decision to disclose peer victimization. *Children Schools Journal*, 27(4):217–226.

- Moir, A., & Jessel, D. (1995). *A Mind to Crime: the controversial link between the mind and criminal behaviour*. London: Michael Joseph Ltd; Penguin
- Monks, C. P., Smith, P. K., Naylor, P., Barter, C., Ireland, J. L., & Coyne, I. (2009). Bullying in different contexts: Commonalities, differences and the role of theory. *Aggressive and Violent Behavior*, 14 , 146 – 156
- Murray, J., Farrington, D. P., & Eisner, M. P. (2009). Drawing conclusions about causes from systematic reviews of risk factors: The Cambridge Quality Checklists. *Journal of Experimental Criminology*, 5(1), 1-23.
- Myron-Wilson, R., Sutton, J., & Smith, P. K. (2001). The association between bully/victim role in school and the nature of attachment in middle childhood. Manuscript submitted for publication.
- Newey, K. A., Finger, L. R., & Magson, N. R. (2006). The Relation between Emotional Self-concept Domains and Involvement in Bullying: A Preliminary Investigation Katrina A. Newey, Linda R. Finger, & Natasha R. Magson.
- Neary, A. & Joseph, S. (1994). Peer victimisation and its relationship to self-concept and depression among schoolchildren. *Personality and Individual Differences*, 16, 183-186
- O'Moore, M., & Kirkham, C. (2001). Self-esteem and its relationship to bullying behaviour. *Aggressive Behavior*, 27(4), 269-283.
- Olweus, D. (1991). Bully/victim problems among schoolchildren: Basic facts and effects of a school based intervention program. In D. J. Pepler & K. H. Rubin (Eds.), *The development and treatment of childhood aggression* (pp. 411–448). Hillsdale, NJ: Erlbaum.

- Olweus, D. (1993). Bully/victim problems among schoolchildren: Longterm consequences and an effective intervention program. In S. Hodgins (Ed.), *Mental disorder and crime* (pp. 317–349). Newbury Park, CA: Sage.
- Olweus, D. (1997). Bully/victim problems in school: Facts and intervention. *European Journal of Psychology of Education, 12*, 495–510. doi:10.1007/BF03172807
- Olweus, D. (1999). Norway. In P. K. Smith, Y. Morita, J. Junger-Tas, D. Olweus, R. Catalano, & P. Slee Eds.), *The nature of school bullying: A cross-national perspective* (pp. 7– 27). London: Routledge.
- Owens, L., Shute, R., & Slee, P. (2001). Victimization among teenage girls. What can be done about indirect harassment? In J. Juvonen and S. Graham (Eds.), *School-based peer harassment: The Plight of the Vulnerable and Victimized*: Guilford.
- Owusu, A., Hart , B., Oliver, P.,& Kang, M. (2011). The association between bullying and psychological health among senior high school students in Ghana, West Africa. *Journal of School Health, 81*(5):231-238. doi: 10.1111/1746-1561.2011.00590.x.
- Overpeck, M., Pilla, R. S., Ruan, W. J., & Simons-morton, B. (2001). *Bullying Behaviors Among US Youth, 285*(16), 2094–2100.
- Parada, R. H. (2000). *Adolescent Peer Relations Instrument: A theoretical and empirical basis for the measurement of participant roles bullying and victimization of adolescence. An interim test manual and a research monograph: A test manual . Penrith, New South Wales, Australia: University of Western Sydney, Self-Concept Enhancement and Learning Facilitation (SELF) Research Centre, Publication Unit.*

- Parada, R. H. (2002). Beyond bullying secondary schools program: Consultant's handbook. Penrith, New South Wales, Australia: University of Western Sydney, Self-Concept Enhancement and Learning Facilitation (SELF) Research Centre, Publication Unit.
- Parada, R. H. (2006). School bullying: Psychosocial determinants and effective intervention. Unpublished doctoral dissertation, University of Western Sydney, Penrith, New South Wales, Australia.
- Parada, R. H., Craven, R. G., & Marsh, H. W. (2008). The beyond bullying secondary program: An innovative program empowering teachers to counteract bullying in schools. Self-processes, learning, and enabling human potential: Dynamic new approaches (Vol.3, pp. 373– 426). Charlotte, NC: Information Age.
- Perkins, H. W., Craig, D. W., & Perkins, J. M. (2011). Using social norms to reduce bullying: A research intervention among adolescents in five middle schools. *Group Processes & Intergroup Relations*, 14(5), 703–722.
- Perry, D. G., Kusel, S. J., & Perry, L. C. (1988). Victims of peer aggression. *Developmental Psychology*, 24(6), 807-814.
- Poteat, V. P., Mereish, E. H., Digiovanni, C. D., & Koenig, B. W. (2011). The Effects of General and Homophobic Victimization on Adolescents' Psychosocial and Educational Concerns : The Importance of Intersecting Identities and Parent Support, 58(4), 597–609.
doi:10.1037/a0025095
- Premack, D., & Woodruff, G. (1978). Does the chimpanzee have a theory of mind? *Behavioural and Brain Sciences*, 1, 515-526.
- Qualter, P., Gardner, K. J., Lancashire, C., & Whiteley, H. E. (2007). Emotional Intelligence : Review of Research and Educational Implications, 11–20.

Randall, P. (2001). *Bullying in adulthood: assessing the bullies and their victims*. New York: Brunner-Routledge.

Raine, A., Venables, P. H., & Williams, M. (1990b). Relationships between central and autonomic measures of arousal at age 15 years and criminality at age 24 years. *Archives of General Psychiatry*, *47*, 1003–1007.

Raskauskas, J. (2010). Text-Bullying : Associations with Traditional Bullying and Depression among New Zealand Adolescents, 74–97

Rigby, K. (1996). *Bullying in schools: And what to do about it*. London: Jessica Kingsley Publishers.

Rigby, K. (1999). Peer victimization at school and the health of secondary school students. *British Journal of Educational Psychology*, *69*, 95-104.

Rigby, K. (2001). Health consequences of bullying and its prevention in schools. *International Journal*.

Rigby, K. (2002). *New perspectives on bullying* (London, Jessica Kingsley).

Rigby, K & Cox, I. K. (1996). The contributions of bullying and low self-esteem to acts of delinquency among Australian teenagers. *Personality and Individual Differences*. *21*,4,609-612.

Rigby, K., & Johnson, B. (2006). Expressed readiness of Australian schoolchildren to act as bystanders in support of children who are being bullied. *Educational Psychology*, *26*, 425-440.

Rigby, K. & Slee, P.T. 1993,“Dimensions of interpersonal relating among Australian school children and their implications for psychological wellbeing”, *Journal of Social Psychology*,*133*1, 33–42.

- Rigby, K. & Slee, P. (1999). Suicidal Ideation among Adolescent School Children, Involvement in Bully—Victim Problems, and Perceived Social Support. *Suicide and Life-Threatening Behaviour*, 29, (2): 119–130. doi: 10.1111/j.1943-278X.1999.tb01050.x.
- Rivers, I. (2009). Observing bullying at school: The mental health implications of witness status. *School Psychology Quarterly*, 24(4), 211-223.
- Rivers, I. & Smith, P. K. (1994). “Types of bullying behaviour and their correlates.” *Aggressive Behavior*, 20: 359-368.
- Roland, E. 2002. “Bullying, depressive symptoms, and suicidal thoughts.” *Educational Research*, 44: 55-67.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Ruffman, T., Slade, L., & Crowe, E. (2007). The relation between children’s and mothers’ mental state language and theory of mind understanding. *Child Development*, 73, 734-751.
- Salmivalli, C. (1999). Participant role approach to school bullying: Implications for intervention. *Journal of Adolescence*, 22(4), 453-459.
- Salmivalli, C., Kärnä, A., & Poskiparta, E. (2009). Development, evaluation, and diffusion of a national anti-bullying program (KiVa). In B. Doll, W. Pfohl & J. Yoon (Eds.), *Handbook of youth prevention science* New York: Routledge .
- Salmivalli, C., Kaukiainen, A., Kaistaniemi, L. & Lagerspetz, K. (1999). Self-Evaluated Self-Esteem, Peer-Evaluated Self-Esteem, and Defensive Egotism as Predictors of Adolescents' Participation in Bullying Situations. *Personality and Social Psychology Bulletin*, 25, 1268-1278.

- Salmivalli, C., Kaukiainen, A., & Lagerspetz, K. M. J. (2000). Aggression and sociometric status among peers: Do gender and type of aggression matter? *Scandinavian Journal of Psychology, 41*, 17–24. doi:10.1111/1467-9450.00166
- Salmon, G., James, A., Casidy, E. L., & Javaloyes, M. A. (2000). Bullying a review : Presentations to an adolescent psychiatric service and within a school for emotionally and behaviourally disturbed children. *Clinical Child Psychology and Psychiatry, 5*(4), 563-579.
- Salmon, G., James, A., & Smith, D. M. (1998). Bullying in schools: Self-reported anxiety, depression and self-esteem in secondary school children. *British Medical Journal, 317*,924–925
- Salovey, P., & Mayer, J.D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality, 9*, 185-211.
- Schuster, B.(1996).Rejection, exclusion, and harassment at work and in schools: an intergration of results from research on mobbing, bullying and peer rejection. *European Psychologist, 1*,293-317.
- Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D., Cooper, J. T., Golden, C., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences, 25*, 167-177.
- Shaver, P. R., Belsky, J. & Brennan, K. A. (2000)."The Adult Attachment Interview and self-reports of romantic attachment: Association across domains and methods." *Personal Relationships 7*: 25–43. doi: 10.1111/j.1475-6811.2000.tb00002.x
- Shields, A., Cicchetti, D., Shields, A., & Cicchetti, D. (2010). Parental Maltreatment and Emotion Dysregulation as Risk Factors for Bullying and Victimization in Middle Childhood

Parental Maltreatment and Emotion Dysregulation as Risk Factors for Bullying and Victimization in Middle Childhood, (January 2013), 37–41.

Simpson, J. A. (1990). Influence of attachment styles on romantic relationships. *Journal of Personality and Social Psychology*, 59(5), 971-980.

Slater, M. D., Henry, K. L., Swaim, R. & Cardador, J. (2004) Vulnerable teens, vulnerable times: How sensation seeking, alienation, and victimization moderate the violent media content - aggressiveness relation. *Communication Research*, 31 (6), 642-668. doi: 10.1177/0093650204269265

Smith P.K., Morita Y., Junger-Tas J., Olweus D., Catalano R., Slee P. (1999). The nature of school bullying: a cross-national perspective. London and New York: Routledge.

Smith, P. K., & Brain, P. (2000). Bullying in Schools □ : Lessons From Two Decades of Research, 26:1–9.

Smokowski , P.R. and Kopasz, K.H.(2005) Bullying in School: An Overview of Types, Effects, Family Characteristics, and Intervention Strategies. *Children & Schools* 27, (2)101-110.

Spear P. (2000). The adolescent brain and age-related behavioral manifestations. *Neuroscience and Biobehavioral Reviews*.24:417–463.

Stavrinides P., Georgiou S. & Theofanous V. (2010). Bullying and empathy: a short term longitudinal investigation. *Educational Psychology*, 30 (7)793-803

Steinberg L. (2007). Risk-taking in adolescence: New perspectives from brain and behavioral science. *Current Directions in Psychological Science. Journal of Research on Adolescents*.16:55–59.

- Sung, J., & Espelage, D. L. (2012). Author's personal copy Aggression and Violent Behavior A review of research on bullying and peer victimization in school □ : An ecological system analysis.
- Sutton, J. (2003). ToM goes to school: Social cognition and social values in bullying. In B.Repacholi & V. Slaughter (Eds.), *Individual differences in theory of mind* (pp. 99–120).New York and Hove: Psychology Press
- Sutton, J., Smith, P. K., & Swettenham, J. (1999). Bullying and ‘theory of mind’: a critique of the ‘social skills deficit’ approach to anti-social behaviour. *Social Development*, 8, 117–127.
- Sutton, J., & Keogh, E. (2001). Components of machiavellian beliefs in children:Relationships with personality. *Personality and Individual Differences*, 30, 137–148.
- Swearer, S. M. (2001). The Bully Survey. Unpublished manuscript. The University of Nebraska –Lincoln.
- Swearer, S. M., & Doll, B. (2001). Bullying in schools: An ecological framework. *Journal of Emotional Abuse*, 2, 7-23
- Swearer, S. M., Espelage, D. L., Vaillancourt, T., & Hymel, S. (2010). What Can Be Done About School Bullying? *Linking Research to Educational Practice*, 39(1) 38–47.
- Tabachnick, B. G., & Fidell, L. S. (2001). Using multivariate statistics (4th Ed.). Needham. Heights, MA: Allyn & Bacon.
- Townsend, L., Flisher, A.J., Chikobvu, P, Lombard, C., & King, G. (2008). The relationship between bullying behaviours and high school dropout in Cape Town, South Africa. *South African Journal of Psychology*, 38(1), 21-32.

- Troy, M., & Sroufe, L. A. (1987). Victimization among preschoolers: role of attachment relationship history. *Journal of the American Academy of Child and Adolescent Psychiatry*, 26, 166–172.
- Twemlow, S. W., Sacco, F. C., Vernberg, E., & Malcom, J. M. (2011). Reducing Violence And Prejudice In A Jamaican All Age School Using Attachment And Mentalization Theory, 28(4), 497–511. doi:10.1037/a0023610
- Uba, I. (2009). The Relationship between Peer Relations and Depression among Adolescents in Selangor, Malaysia, 11(1), 149–159.
- Uba, I., Yaacob, S.N. & Juhari, R. (2010). Bullying and Its' Relationship with Depression among Teenagers. *Journal of Psychology*, 1(1)15-22.
- Ulutas, I., & Omeroglu, E. (2007). The effects of an emotional intelligence education program on the emotional intelligence of children. *Social Behaviour and Personality*, 35, 1365 – 1372.
- Underwood K. (2003). *Social aggression among girls*. New York: The Guilford Press.
- 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.
- Vreeman, R.C. & Carroll, A. E. (2007). A systematic review of school-based interventions to prevent bullying. *Archives of Pediatric Adolescent Medicine*, 161(1), 78-88.
- Walden, L., & Beran, T. (2010). Attachment quality and bullying behavior in school aged youth. *Canadian Journal of School Psychology* 25(1) 5–18. doi: 10.1177/0829573509357046
- Warden, D. & Mackinnon, S. (2003). *Prosocial children, bullies and victims : an investigation of their sociometric status, empathy and social problem-solving strategies*. *British Journal of Developmental Psychology*, 21 (3), 367-385.

- West, M., Rose, M. S., Spreng, S., Sheldon-Keller, A. & Adam, K. (1998). Adolescent Attachment Questionnaire: A Brief Assessment of Attachment in Adolescence. *Journal of Youth and Adolescence*, 27(5):661-673
- Whitted, K. S., & Dupper, D. R. (2005). Best practices for preventing or reducing bullying in schools. *Children and Schools*, 27,167– 175.
- Williams, K. "Bullying behaviors and attachment styles" (2011). Electronic Theses & Dissertations. Paper 444.
- Williams, K. R., & Guerra, N. G. (2007). Prevalence and predictors of Internet bullying. *Journal of Adolescent Health*, 41, S14-S21.
- Wolke, D., Woods, S., Bloomfield, L., & Karstadt, L. (2001). Bullying involvement in primary school and common health problems. *Archives of Disease in Childhood*, 85(3), 197-201.
- Woods, S. & White, E. (2005). The association between bullying behaviour, arousal levels and behaviour problems. *Journal of Adolescence*, 28, 381–395
- Woods, S. & Wolke, D. (2004). Direct and relational bullying among primary school children and academic achievement. *Journal of School Psychology*.42:135–155.
doi:10.1016/j.jsp.2003.12.002.
- Xie, H., Cairns, R.B., & Cairns, B.D. (2002). The development of social aggression and physical aggression: A narrative analysis of interpersonal conflicts. *Aggressive Behavior*, 28, 341-355
- Ybarra, M. (2004). Linkages between depressive symptomology and internet harassment among young regular internet users. *CyberPsychology and Behavior*, 7(2), 247-257

- Ybarra, M., Espelage, D.L., & Mitchell, K. (2007). The Co-Occurrence of Internet Harassment and Unwanted Sexual Solicitation Victimization and Perpetration: Associations with Psychosocial Indicators. *Journal of Adolescent Health*. 41(6): 31-41.
- Yeung, R., & Leadbeater, B. (2010). Adults make a difference: The protective effects of parent and teacher emotional support on emotional and behavioral problems of peer-victimized adolescents. *Journal of Community Psychology*, 38, 80-98.
- Zuckerbrot, R.A., Maxon, L., Pagar, D., Davies, M., Fisher, P.W., Shaffer, D. (2007). Adolescent depression screening in primary care: feasibility and acceptability. *Pediatrics*. 119(1):101-8.
- Zuckerman, M. (1979). Sensation seeking: Beyond the optimal level of arousal. Hillsdale, NJ: Lawrence Erlbaum.
- Zuckerman, M. (1983b) Sensation seeking: The initial motive for drug abuse. In: Gottheil, E.; Druley, K.A.; Skoloda, T.E.; and Waxman, H.M., eds. *Etiological Aspects of Alcohol and Drug Abuse*. Springfield, IL: Thomas. pp. 202-220.
- Zuckerman, M. (1984a) Sensation seeking: A comparative approach to a human trait. *Behaviour Brain Science* 7:413-471
- Zuckerman, M., Eysenck, S., & Eysenck H.J. (1978). Sensation seeking in England and America: cross-cultural, age, and sex comparisons. *Journal of consulting and clinical psychology*. 46(1):139-49.
- Zuckerman, M., Kuhlman, D. M., Teta, P., Joireman, J., & Kraft, M. (1993). A comparison of three structural models of personality: the big three, the big five, and the alternative five. *Journal of Personality and Social Psychology*, 65,757-768.

Appendix A

List of Senior High Schools located within the Accra Metropolitan Area

SCHOOL	TYPE	LOCATION
Accra Academy	Public school & Boys school	Bubuashi, Accra
Accra Technical Training Center (ATTC)	Public school	Accra
Accra Girls Secondary School	Public school & Girls school	Maamobi
Accra Grammar School	Public school	Accra
Accra High School	Public school	Asylum Down
Achimota School	Boarding school	Accra
Alpha Beta Christian College	International school	Accra
American Curriculum International School	International school	Accra
Armed Forces Secondary	Technical school	Burma Camp
Aquinas Secondary	Public school	Cantonments
Apostle Safo School of Arts and Sciences	Public school	Awoshie
Christian Methodist School	Public school	New Aplaku, Accra
Corpus Christi Senior Secondary School	Public school	Accra
Dansoman Secondary School	Public school	Dansoman
Ebenezer Secondary School	Public school	Dansoman
Edge Hill Senior High School	Public school	Awoshie
Pank Secondary School	Public school	Awoshie
Faith Montessori School and International College	International school	Accra
Ghana International School	International school	Accra
Holy Trinity Secondary	Public school	Accra
Kaneshie Secondary	Technical school	Kaneshie
Kinbu Secondary	Technical school	Kinbu
La Presbyterian Senior Secondary School	Public school	Accra
Labone Secondary	Private school	Labone
Labone Secondary	Private school	Labone
Lincoln Community School	Private school & International school	Accra
Madina Senior High School	Public school	Madina, Accra
Nungua Secondary School	Public school	Nungua
O'Reilly Senior High School	Public school	Adabraka
Odorgonno Secondary	Public school	Awoshie
Osu Presbyterian Secondary School	Public school	Osu, Accra
Presbyterian Boys' Secondary	Public school & Boys school	Legon, Accra
St. Margaret Mary Senior High School	Public school	Dansoman
Saint Mary's Secondary	Public school	Korle Gonno
Teshie Presby Secondary	Public school	Teshie
Wesley Grammar	Public School	Dansoman

Source: www.ghanaeducationdirectory.com

Appendix B

Proof of Ethical Clearance

NOGUCHI MEMORIAL INSTITUTE FOR MEDICAL RESEARCH
Established 1979 *A Constituent of the College of Health Sciences*
University of Ghana

INSTITUTIONAL REVIEW BOARD

Phone: +233-302-916438 (Direct)
 +233-289-522574
 Fax: +233-302-502182/513202
 E-mail: nirb@noguchi.mimcom.org
 Telex No: 2556 UGL GH



Post Office Box LG 581
 Legon, Accra
 Ghana

My Ref. No: DF.22
 Your Ref. No:

10th May, 2012

ETHICAL CLEARANCE

FEDERALWIDE ASSURANCE FWA 00001824

IRB 00001276

NMIMR-IRB CPN 088/11-12

IORG 0000908

On 10th May, 2012, the Noguchi Memorial Institute for Medical Research (NMIMR) Institutional Review Board (IRB) at a full board meeting reviewed and approved your revised protocol titled:

TITLE OF PROTOCOL : **Bullying: Risk Factors and Psychological Outcomes among Adolescents in Ghana**


PRINCIPAL INVESTIGATOR : **Beatrice Dwumfour Williams (MPhil Student)**

Please note that a final review report must be submitted to the Board at the completion of the study. Your research records may be audited at any time during or after the implementation.

Any modification of this research project must be submitted to the IRB for review and approval prior to implementation.

Please report all serious adverse events related to this study to NMIMR-IRB within seven days verbally and fourteen days in writing.

This certificate is valid till 9th May, 2013. You are to submit annual reports for continuing review.

Signature of Chairman: 
 Rev. Dr. Samuel Ayete-Nyampong
 (NMIMR – IRB, Chairman)

cc: Professor Alexander K. Nyarko
 Director, Noguchi Memorial Institute
 for Medical Research, University of Ghana, Legon

Appendix C

Child Assent Form

Introduction

My name is Beatrice Dwumfour Williams and I am from the Department of Psychology, University of Ghana. I am conducting a research study entitled “Bullying: Risk factors and Psychological outcomes among Adolescents in Ghana. I am asking you to take part in this research study because I am trying to learn more about why students engage in bullying behaviour, risk factors (what makes them do it) and the possible psychological outcomes of such acts. This will take approximately forty five minutes.

General Information

If you agree to be in this study, you will be asked to respond to some questions on several areas that are thought to contribute to engaging in bullying behaviour. It requires you filling questionnaires. Your guardians would also be asked to fill a questionnaire that rates you on social competence.

Possible Benefits

Your participation in this study will result in providing some reasons for why some students engage in bullying as well as getting up-to-date information on whether they experience depression and or suicidal ideation (Psychological outcomes)

Possible Risks and Discomforts

There are no known or intended risks; however, the discomforts associated are spending more time in answering the questions which can make you bored or tired. Therefore be informed that you would be allowed to take a break if need be to help minimize boredom and or tiredness.

Further, some of the questions on bullying, risk factors and psychological outcomes might remind you of past negative experience, feelings and thoughts. In this case, feel free to contact me or my supervisor on the cell numbers provided for free psychotherapy sessions.

Voluntary Participation and Right to Leave the Research

You can stop participating at any time if you feel uncomfortable. No one will be angry with you if you do not want to participate.

Confidentiality

Your information will be kept confidential. No one will be able to know how you responded to the questions and your information will be anonymous.

Contacts for Additional Information

You may ask me any questions about this study. You can call me at any time (Beatrice - 0233-099-916) or talk to me the next time you see me.

Please talk about this study with your parents before you decide whether or not to participate. I will also seek permission from your parents before you are enrolled into the study. Even if your parents say “yes” you can still decide not to participate.

VOLUNTARY AGREEMENT

By making a mark or thumb-printing below, it means that you understand and know the issues concerning this research study. If you do not want to participate in this study, please do not sign

this assent form. You and your parents will be given a copy of this form after you have signed it.

This assent form which describes the benefits, risks and procedures for the research titled **“Bullying: Risk factors and Psychological outcomes among Adolescents in Ghana”** has been read and or explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate.

Child’s Name:..... **Researcher’s Name:**.....

Child’s Mark/Thumbprint..... **Researcher’s Signature:**.....

Date:

Date:

Appendix D

Parental Consent Form

Title: Bullying: Risk factors and Psychological Outcomes among Adolescents in Ghana

Principal Investigator: Beatrice Dwumfour Williams

Address: Department of Psychology, University of Ghana, Legon.

General Information about Research

This study is to find out risk factors and outcomes of engaging in bullying behaviour. It is intended to explore whether an individual's quality of parental attachment, self esteem, perception of social competence and sensation seeking personality would influence the likelihood of that individual engaging in bullying behaviour either as a victim, perpetrator or victim/perpetrator. In addition, this research seeks to investigate whether the experience of bullying and some emotional difficulties. Your ward has therefore been selected as part of respondents for this study. The child would be required to fill a questionnaire that will last between 30 and 45 minutes. I am therefore requesting consent from you for your child.

Possible Risks and Discomforts

There are no anticipated risks in taking part in this research. However, participants may feel a bit tired. This might be due to the number of items on the questionnaires. Therefore, ample time will be sought so as to give enough room for your ward's recuperation. It will also be made clear to your ward that he/she is free to stop responding to the questionnaire at any section of it and at any point in time. Further, responding to the questionnaire might rekindle some thoughts on suicide

and or depression (for your ward) since some section of the questionnaire tackles suicidal ideation. Hence, phone numbers (of the supervisor and the principal investigator) will be provided to help any ward who will have problems to contact for free psychotherapy sessions. In addition, enough time will be created for questions and answers so as to allay fears and discomforts that might have occurred during the course of the study.

Possible Benefits

This research will help give up-to-date information on bullying behaviours, certain factors that can predispose an adolescent to engaging in it either as a victim or perpetrator or in some case both (victim/perpetrator) : as well as the psychological outcomes (depression and suicidal ideation) associated with it.

Confidentiality

The research will ensure absolute anonymity of your ward's responses since there would not be any tag (either name or code) to identify him/her in any way.

Compensation

Your ward will receive a pen that has been embossed with University of Ghana inscription.

Voluntary Participation and Right to Leave the Research

This research will be voluntary and your ward can withdraw without any penalty.

Contacts for Additional Information

The following numbers can be contacted in case of any discomfort, explanation or further information.

Researcher: Beatrice Dwumfour Williams (Tel: 023-3099-916)

Supervisor: Dr. Adote Anum (aanum@ug.edu)

Your rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of Noguchi Memorial Institute for Medical Research (NMIMR-IRB). If you have any questions about your ward's rights as a research participant you can contact the IRB Office between the hours of 8am-5pm through the landline 0302916438 or email addresses: nirb@noguchi.mimcom.org or HBaidoo@noguchi.mimcom.org . You may also contact the chairman, Rev. Dr. Ayete-Nyampong through mobile number 0208152360 when necessary.

GUARDIAN/PARENTAL AGREEMENT

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research "Bullying: Risk factors and Psychological Outcomes among Adolescents in Ghana" have been explained to me (Guardian/Parent) as well as my ward. Hence, he/she can go ahead to participate in the study

Date

Name and Signature of Guardian/Parent

Appendix E

Bullying, Adolescent Attachment, Sensation Seeking, Emotional Intelligence, Self Esteem,

Depression Scale

Please fill out each the following pages until the end where it is stated “END OF SURVEY”.

Please answer each and every question to the best of your knowledge and as truthful as possible.

Please do well not to skip any of the questions. There are no right or wrong answers. If you do

not know the response to any of the demographics questions simply write N/A by the question. I

would be available in the class to answer any question(s)

Once again, thank you for your time and participation in this study

DEMOGRAPHIC INFORMATION

Please underline or circle appropriate response(s) where indicated. Please answer each and every question on this page.

Age.....

Gender: M/F

Form: JH 1, JH 2, JH 3 SH1, SH2, SH3, SH4

Religious Background

Christian

Muslim

Traditionalist

Others

Family type

One-Parent Family

Two-Parent Family

Extended Family Care

Other

Socio-economic Status (For One or Both Parents):

Father's work/profession.....

Mother's work/profession.....

Father's educational level

Basic (Primary school)

Secondary

Tertiary

Postgraduate

ADOLESCENT PEER RELATIONS INSTRUMENT: BULLY/TARGET (APRI-BT)

The first set of the questions are in two sections; namely A and B. The first set of eighteen (18) questions asks about your involvement in bullying as the perpetrator (one who bullies others). The next set of eighteen (18) questions also asks about your involvement in bullying as the victim (one who is bullied). Please take note and respond correctly.

Section A

Since you have been at this school **THIS YEAR** how often **HAVE YOU** done any of the following to a **STUDENT** (or students) **here**. **CIRCLE THE NUMBER THAT IS CLOSEST TO YOUR ANSWER.**

1= NEVER, 2 = SOMETIMES, 3 = ONCE OR TWICE A MONTH, 4 = ONCE A WEEK, 5= SEVERAL TIMES A WEEK, 6 = EVERDAY

In the past year at this school I . . .

1. Teased them (student) by saying things to them	1	2	3	4	5	6
2. Pushed or shoved a student	1	2	3	4	5	6
3. Made rude remarks at a student	1	2	3	4	5	6
4. Got my friends to turn against a student	1	2	3	4	5	6
5. Made jokes about a student	1	2	3	4	5	6
6. Hit a student on purpose as he/she walked by	1	2	3	4	5	6
7. Picked on a student by insulting them	1	2	3	4	5	6
8. Told my friends things about a student to get them into trouble	1	2	3	4	5	6
9. Got into a fight with a student because I didn't like them	1	2	3	4	5	6
10. Said things about their looks they didn't like	1	2	3	4	5	6

BULLYING: RISK FACTORS AND PSYCHOLOGICAL OUTCOMES

146

11. Got other students to start a gossip about a student	1	2	3	4	5	6
12. I slapped or punched a student	1	2	3	4	5	6
13. Got other students to ignore a student	1	2	3	4	5	6
14. Made fun of a student by calling them names	1	2	3	4	5	6
15 Threw something to hit a student	1	2	3	4	5	6
16. Threatened to physically hurt or harm a student	1	2	3	4	5	6
17. Left them (student) out of activities or games on purpose	1	2	3	4	5	6
18. Kept a student away from me by giving them mean looks	1	2	3	4	5	6

SECTION B

Please indicate how often a student (or students) at this school has done the following things TO YOU since you have been **here** this year. CIRCLE THE NUMBER THAT IS CLOSEST TO YOUR ANSWER

1= NEVER, 2 = SOMETIMES, 3 = ONCE OR TWICE A MONTH, 4 = ONCE A WEEK, 5= SEVERAL TIMES A WEEK, 6 = EVERDAY

In the past year at this school.....

1. I was teased by students saying things to me	1	2	3	4	5	6
2. I was pushed or shoved	1	2	3	4	5	6
3. A student wouldn't be friends with me because other people didn't like me	1	2	3	4	5	6
4. A student made rude remarks at me	1	2	3	4	5	6
5. I was hit or kicked hard	1	2	3	4	5	6
6. A student ignored me when they were with their friends	1	2	3	4	5	6
7. Jokes were made up about me	1	2	3	4	5	6

8. Students bumped into me on purpose as they walked by	1	2	3	4	5	6
9. A student got their friends to turn against me	1	2	3	4	5	6
10. My property was damaged on purpose	1	2	3	4	5	6
11. Things were said about my looks I didn't like	1	2	3	4	5	6
12. I wasn't invited to a student's place because other people didn't like me	1	2	3	4	5	6
13. I was made fun of by students saying things to me	1	2	3	4	5	6
14. A student got students to start a rumour about me	1	2	3	4	5	6
15. Something was thrown at me to hit me	1	2	3	4	5	6
16. I was threatened to be physically hurt or harmed	1	2	3	4	5	6
17. I was left out of activities, games on purpose	1	2	3	4	5	6
18. I was called names I didn't like	1	2	3	4	5	6

ADOLESCENT ATTACHMENT QUESTIONNAIRE (AAQ)

Tell us some more about yourself

Instructions: Answer all of the following questions about your relationship with the person in your life who raised you as a young child that is, the person who mostly took care of you from the time you were born to age 5. Also please circle the number that indicates the extent to which the statement describes you.

Please indicate who raised you:

Mother Father Step-mother Step-father

Grandmother Grandfather

Other Please specify:

1 ---- **Absolutely Yes**

2 ---- **Yes**3 ---- **Neither yes nor no** /uncertain4 ---- **No**5 ---- **Absolutely not**

1. I feel sad for my parent when he/she is upset.	1	2	3	4	5
2. My parents only pay attention to me when I am angry.	1	2	3	4	5
3. I like to help my parent whenever I can.	1	2	3	4	5
4. I get annoyed at my parent because I always have to tell them to care for and support me.	1	2	3	4	5
5. I talk to my parents about things	1	2	3	4	5
6. I often feel angry with my parent without knowing why	1	2	3	4	5
7. I'm confident that my parent will always love me.	1	2	3	4	5
8. I'm confident that my parent will try to understand my feelings.	1	2	3	4	5
9. I feel good when I am able to do things for my parent.	1	2	3	4	5

SENSATION SEEKING QUESTIONNAIRE (SSQ)

Please complete the following questions. There are no right or wrong answers; everyone is an individual, just respond to the statement. For each statement, choose either true (T) or false (F). If you do not like either choice, mark the choice you dislike the least.

1. I like to have new and exciting experiences and feelings even if they are a little frightening.	T	F
2. I like doing things just for the thrill of it	T	F
3. I sometimes do "crazy" things just for fun	T	F
4. I sometimes like to do things that are a little frightening	T	F
5. I enjoy getting into new situations where you can't predict how things will turn out	T	F
6. I'll try anything once	T	F
7. I prefer friends who are excitingly unpredictable	T	F
8. I like "wild" uninhibited parties	T	F

9. I would like the kind of life where one is on the move and travelling a lot, with lots of change and excitement	T	F
10. I am an impulsive person	T	F
11. I like to explore a strange city or section of town by myself, even if it means getting lost	T	F
12. I would like to take off on a trip with no planned or definite routes or timetables	T	F
13. Before I begin a something, I make careful plans	T	F
14. I do not spend much time on the details of planning ahead	T	F
15. I tend to begin something new without much advance planning on how I will do it	T	F
16. I usually think about what I am going to do before doing it	T	F
17. I often do things on impulse	T	F
18. I often get so carried away by new and exciting things and ideas that I never think of possible complications	T	F
19. I tend to change interests frequently.	T	F

EMOTIONAL INTELLIGENCE SCALE (EIS)

Please indicate the extent to which you agree with the following statements, using the scale below:

Strongly disagree = 1

Disagree = 2

Neutral = 3

Agree = 4

Strongly agree = 5

STATEMENT	Strong disagree 1	Disagree 2	Neither 3	Agree 4	Strongly agree 5
-----------	-----------------------------	----------------------	---------------------	-------------------	----------------------------

BULLYING: RISK FACTORS AND PSYCHOLOGICAL OUTCOMES

1. I know when to speak about my personal problems to others.	1	2	3	4	5
2. When I am faced with obstacles, I remember times I faced similar obstacles and overcame them.	1	2	3	4	5
3. I expect that I will do well on most things I try.	1	2	3	4	5
4. Other people find it easy to confide in me.	1	2	3	4	5
5. I find it hard to understand the non-verbal messages of other people.	1	2	3	4	5
6. Some of the major events of my life have led me to re-evaluate (go over) what is important and not important.	1	2	3	4	5
7. When my mood changes I see new possibilities.	1	2	3	4	5
8. Emotions are one of the things that make my life worth living.	1	2	3	4	5
9. I am aware of my emotions as I experience them.	1	2	3	4	5
10. I expect good things to happen.	1	2	3	4	5
11. I like to share my emotions with others.	1	2	3	4	5
12. When I experience a positive emotion, I know how to make it last.	1	2	3	4	5
13. I arrange events others enjoy.	1	2	3	4	5
14. I seek out activities that make me happy.	1	2	3	4	5
15. I am aware of the non-verbal messages I send to others.	1	2	3	4	5
16. I present myself in a way that makes a good impression on others.	1	2	3	4	5
17. When I am in a positive mood, solving problems is easy for me.	1	2	3	4	5
18. By looking at their facial expressions, I recognize the emotions people are experiencing.	1	2	3	4	5
19. I know why my emotions change.	1	2	3	4	5
20. When I am in a positive mood, I am able to come up with new ideas.	1	2	3	4	5
21. I have control over my emotions.	1	2	3	4	5
22. I easily recognize my emotions as I experience them.	1	2	3	4	5
23. I motivate myself by imagining a good outcome to tasks I take on.	1	2	3	4	5
24. I compliment (praise) others when they have done something well.	1	2	3	4	5

BULLYING: RISK FACTORS AND PSYCHOLOGICAL OUTCOMES

151

25. I am aware of the nonverbal messages other people send.	1	2	3	4	5
26. When another person tells me about an important event in his or her life, I almost feel as though I have experienced this event myself.	1	2	3	4	5
27. When I feel a change in emotions, I tend to come up with new ideas.	1	2	3	4	5
28. When I am faced with a challenge, I give up because I believe I will fail.	1	2	3	4	5
29. I know what other people are feeling just by looking at them.	1	2	3	4	5
30. I help other people feel better when they are down (sad)	1	2	3	4	5
31. I used good moods to help myself keep trying in the face of obstacles (problems)	1	2	3	4	5
32. I can tell how people are feeling by listening to the tone of their voice.	1	2	3	4	5
33. It is difficult for me to understand why people feel the way they do.	1	2	3	4	5

ROSENBERG SELF-ESTEEM SCALE (SES)

Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, tick **SA**. If you agree with the statement tick **A**. If you disagree, tick **D**. If you strongly disagree, circle **SD**.

The next 7 statements also ask about how you feel about yourself with regard to your school work (academic competence). Please read through and tick the option that applies most to you

Statement	Strongly agree (SA)	Agree (A)	Disagree (D)	Strongly disagree (SD)
1. I feel that I am a person of worth, at least on an equal plane with others	1	2	3	4
2. I feel that I have a number of good qualities.	1	2	3	4
3. All in all, I am inclined to feel that I am a failure.	1	2	3	4

BULLYING: RISK FACTORS AND PSYCHOLOGICAL OUTCOMES

152

4. I am able to do things as well as most other people.	1	2	3	4
5. I feel I do not have much to be proud of.	1	2	3	4
6. I take a positive attitude toward myself	1	2	3	4
7. On the whole, I am satisfied with myself.	1	2	3	4
8. I wish I could have more respect for myself.	1	2	3	4
9. I certainly feel useless at times.	1	2	3	4
10. At times I think I am no good at all.	1	2	3	4

COLUMBIA DEPRESSION SCALE (CDS)

If the answer to the question is “No,” circle the 0; if it is “Yes,” circle the 1. Please answer the following questions as honestly as possible.

In the last four weeks ...	No	Yes
1. Have you often felt sad or depressed?	0	1
2. Have you felt like nothing is fun for you and you just aren't interested in anything	0	1
3. Have you often felt grouchy or irritable and often in a bad mood, when even little things would make you mad?	0	1
4. Have you lost weight?	0	1
5. Have you lost your appetite or often felt like not eating	0	1
6. Have you gained a lot of weight?	0	1
7. Have you felt much hungrier than usual or eaten a lot more than usual?	0	1
8. Have you had problems sleeping, that is, falling asleep, staying asleep or waking up too early?	0	1
9. Have you slept more during the day than you usually do?	0	1
10. Have you often felt slowed down	0	1
11. Have you often felt restless ... like you just had to keep walking around?	0	1

BULLYING: RISK FACTORS AND PSYCHOLOGICAL OUTCOMES

153

12. Have you had less energy than you usually do?	0	1
13. Has doing even little things made you feel really tired?	0	1
14. Have you often blamed yourself for bad things that happened	0	1
15. Have you felt you couldn't do anything well and weren't as good-looking or as smart as other people?	0	1
16. Has it seemed like you couldn't think as clearly or as fast as usual?	0	1
17. Have you often had trouble keeping your mind on your [schoolwork/work] or other things?	0	1
18. Has it often been hard for you to make up your mind or to make decisions?	0	1
19. Have you often thought about death or about people who had died or about being dead yourself?	0	1
20. Have you thought seriously about killing yourself?	0	1
21. Have you tried to kill yourself in the last four weeks?	0	1
22. Have you EVER, in your WHOLE LIFE, tried to kill yourself or made a suicide attempt?	0	1

“END OF SURVEY”

Appendix F

A1: Summary of simple linear regression of bullying and victimization behaviour on depression

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations	
		B	Std. Error	Beta	Zero-order	Partial	Part	Tolerance
1	(Constant)	2.924	.228		12.812	.000		
	Bullying behaviour	.008	.047	.012	.177	.860	-.017	.010
	Victimization behaviour	-.031	.043	-.050	-.737	.462	-.043	-.041

a. Dependent Variable: depression

Appendix G

Summary of linear regression of bullying behaviour on depression

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			
	B	Std. Error	Beta	Zero-order	Partial	Part	Tolerance		
1	(Constant)	2.850	.210		13.548	.000			
	Bullying behaviour	-.012	.039		-.318	.750	-.017	-.017	

a Dependent Variable: depression

Appendix H

Summary of linear regression of emotional intelligence on victimization

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			
	B	Std. Error	Beta	Zero-order	Partial	Part	Tolerance		
1	(Constant)	4.868	.238		20.442	.000			
	Emotional intelligence	.132	.042		3.166	.002	.170	.170	

a Dependent Variable: victimization

Appendix I

Summary of Linear Regression of Victimization on Sensation Seeking

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			
	B	Std. Error	Beta	Zero-order	Partial	Part	Tolerance		
1	(Constant)	1.699	.096		17.686	.000			
	vtsqrt	-.027	.017		-1.594	.112	-.088	-.088	

a Dependent Variable: sensation seeking behaviour