Understanding school violence in Thailand and

the effectiveness of intervention programs

A thesis submitted for the degree of Doctor of Philosophy

by

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TABLES

FIGURE

DECLARATION

I certify that this work does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

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Abstract

School violence among technical college students in Thailand has been a topic of great national concern in recent decades. This study sought to understand the causes of school violence and to evaluate the effects of two school-based interventions in three phases: a qualitative pilot study to document the meaning of violence, a cross-sectional study to identify the prevalence of violence, and a randomized controlled trial to examine the effects of interventions that aimed to reduce violence.

In the first phase, semi-structured interviews with 32 male students were conducted at a technical college in Bangkok. The results showed that a strong bond developed between junior and senior students, and that violence typically occurred in the context of fights against students from other colleges. Self-protection, anger expression, and revenge were motivating factors for the fights.

In the second phase, a cross-sectional study was conducted in nine technical colleges across two provinces of Thailand. These included five technical colleges in Bangkok (BKK) and four in Nakhon Ratchasima (Khorat), with a total of 1,778 students (20% of total students) participating. The cross-sectional survey included self-report instruments assessing violent behavior, violence classifications (offender, direct and indirect victim, witness), protective and risk factors, anger expression and depression. Hierarchical regression analysis was used to analyze the data and the association between violent behaviors, negative emotions (anger and depression), and risk-protective factors were measured using odds ratios. The findings showed that approximate 20% of students in both provinces had high levels of anger expression, but that Bangkok students experienced higher levels of anger across every mode of expression (Anger-

Out, Anger-In, Control-Out, and Control-In). Additionally, anger-out and anger-in expressions were strongly related to violent behavior, and anger control was shown to be a protective factor against violent behavior. Depression was strongly associated with violence. Additionally, nearly all commonly identified risk factors were strongly related to violent behavior, especially those in the peer and family domains.

In the third phase of the research, a randomized controlled trial was conducted in one technical college in BKK, with students allocated into either a Mindfulness Meditation intervention group (MM, n=28 students), Aggression Replacement Training (ART, n=23 students), or a no-intervention control group (n=48 students). Self-report data were collected at three time periods: pre-intervention, one month, and three months post-intervention. Semi-structured interviews were also undertaken with 83 students in order to further evaluate the effectiveness of the interventions. The interventions were not clearly shown to reduce violent behavior, or to reduce negative emotion (anger expression and depression). However, the semi-structured interviews provided additional data on how students controlled their emotions and how they had learned strategies to reduce violence from both interventions.

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Chapter 1

Introduction

1.1.   Background

Violence among young people is a significant public health issue in every country. While the global rate of violence-related mortality is 9.2 deaths per 100,000, rates range from 0.9 per 100,000 in high-income countries to 36.4 per 100,000 in Latin America (World Health Organization, 2002). Globally, an average of 565 children, adolescents, and young adults aged 10–29 years die each day as a result of interpersonal violence (Krug, Mercy, Dahlberg, & Zwi, 2002; U. S. Department of Justice [USDHHS], 2001). Several reports have noted that violence-related mortality in the United States (US) exceeds that of other developed countries (Fingerhut, Ingram, & Feldman, 1998; World Health Organization, 2002). Interpersonal violence has been identified as a major cause of injury and death in the US, with physical assault ranked as the sixth leading cause of non-fatal injury in those aged 15–19 years and the seventh leading cause in those aged 10–14 years (Centers for Disease Control and Prevention, 2000). According to the 2005 national Youth Risk Behavior Survey, 35.9% of students had been involved in a physical fight in the previous year (Department of Health and Human Services & Center for Disease Control and Prevention, 2006). Homicide rates in Western Europe are generally lower and consistent over time (World Health Organization, 2002); one cross-national survey of adolescent violence-related behavior in five developed nations (Ireland, Israel, Portugal, Sweden, and the USA) reported that youths across these nations display a similar pattern of delinquent behavior (Smith-Khuri et al., 2004).

Although rates of interpersonal violence have been well documented in high-income countries, information on the prevalence of, and associated factors for,

interpersonal violence in developing countries is less readily available. This is despite suggestions that a large number of adolescents and young adults who die each day as a result of interpersonal violence are from South-East Asia (World Health Organization, 2002). The focus of the current investigation is on Thailand, a South-East Asian country in which youth violence has been identified as a significant public health concern for many years. In 1994, a national report on youth violence showed that the homicide rate among Thai youths (aged 10–29 years) was 6.2 per 100,000 population (World Health Organization, 2002), and that the annual number of self-harm deaths increased from 4,200 to 6,900 between 1998 and 2004[1]. Assault from interpersonal violence caused the deaths of approximately 3,000–5,000 persons between 2000 and 2004 (World Health Organization-Kobe, 2007). The number of young people arrested because of physical assault rose by nearly 2,000 cases from 2005 to 2006 (Royal Thai Police, 2009), representing a nearly 20-fold increase from five years earlier.

Statistics such as these highlight how both fatal and non-fatal assaults involving young people contribute greatly to the burden of premature death, injury, and disability. Youth violence deeply harms not only its victims, but also their families, friends, and communities (World Health Organization, 2002). Most young people who are arrested following violent incidents are students from technical colleges, where nearly 90% of the students are male (Vocational Education Commission, 2010). They are often arrested on suspicion of involvement in attacking or killing students from other gangs, although fights in public places may also result in injury to innocent bystanders. In this thesis, the influence of risk and protective factors (individual, peers, family, school, and community) on school-related violent behavior is explored. This includes an investigation of the

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[1] In 2004, self-harm was the second-highest cause of death, with 6.9 per 100,000, and assault was the fourth-highest cause with 4.9 per 100,000.

prevalence of various violent behaviors and violence classifications (offenders, direct and indirect victims, witnesses), and the negative emotions (anger and depression) that arise in response to violent behavior, and the impact of two different school-based interventions to reduce violence among young Thai men who attend technical college.

1.2.   School System in Thailand

Education in Thailand from pre-school to senior high school is provided mainly by the Thai government through the Ministry of Education. A minimum of nine years' school attendance is mandatory, and free basic education for twelve years is mandated in the constitution. Formal education consists of at least twelve years of basic education, followed by higher education. Basic education is divided into six years of primary education and six years of secondary education, the latter being further divided into three years each of lower and upper secondary levels. The school structure is separated into four stages; the first three years in elementary school, Prathom 1–3, are for age groups 6 to 8 years; the second level, Prathom 4–6, is for those aged 9 to 11 years; the third level, Matthayom 1–3, is for those aged 12 to 14 years and the upper secondary level of schooling, Matthayom 4–6, is for those aged 15 to 17 years. Matthayom is separated into academic and vocational streams, offering academic and vocational tracks through academic upper secondary schools, vocational upper secondary schools, and comprehensive schools.

Students who choose the academic stream usually intend to enter university, while vocational schools offer programs that prepare students for employment or further studies. Formal vocational and technical education is conducted at three levels, upper secondary leading to Lower Certificate of Vocational Education, post secondary leading to diplomas or Vocational Associate Degrees, and university level leading to degrees.

Vocational education aims to produce and develop skilled workers who have knowledge and vocational skills to enter the workforce at community, local, and national levels (Ministry of Education, 2009). On the other hand, the goal of academic high schools is to prepare students for highly specialized learning leading to university, so high school students undertake intensive coursework and concentrate on academic development. Thus, there are boundaries and distinctions between academic and vocational high schools in the educational system. Vocational students are more likely to come from families with lower socioeconomic status, have been shown to drink alcohol and use illicit substances more often than high school students, and are reported to engage in physical and sexual violence more frequently than high school students (Pradubmook-Sherer, 2011).

1.3.   Definitions of Violence

Young people are defined by the World Health Organization (WHO) as people between the ages of 10 and 24 years (World Health Organization, 2002). At this stage of development, young people typically attempt to balance personal needs against cultural and social rules in order to develop their own identity (Erikson, 1968). In short, they have to differentiate themselves from their parents and learn to become autonomous (Josselson, 1980) as they prepare for adulthood (A. Furlong & Cartmel, 1997; Irwin & Igra, 1995; Mitterauer, 1992). It is also a period of risk and opportunity. Risk-taking behaviors begin at an early age, increase throughout the adolescent period, and are more common among boys than girls (Irwin, Igra, Eyre, & Millstein, 1997).

Violence is defined by WHO as "*the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation*" (WHO Global Consultation on violence and health,

1996, pp. pp.2-3). This definition covers a comprehensive range of issues, including psychological harm, deprivation and maldevelopment. Violence can be understood as self-directed, interpersonal, or collective, and there are links between these different domains. Self-directed violence can be divided into suicidal behavior (suicidal thoughts, attempted suicide) and self-abuse (self-mutilation). Similarly, interpersonal violence can include family and intimate partner violence as well as community violence. Collective violence is subdivided into social, political, and economic violence and is committed by large groups of individuals or by states(WHO Global Consultation on violence and health, 1996). The distinction between aggression and violence is largely based on the extent of physical harm inflicted (Anderson & Bushman, 2002b; Blackburn, 1993). Aggression can be understood as any physical or verbal action that is performed with the deliberate intention of hurting another living being (e.g.,Clay, Hagglund, Kashani, & Frank, 1996). Certainly, every act of violence is aggressive but not every act of aggression is violent.

1.4.   Violence Overview

In 2000, an estimated 1.6 million people worldwide died as a result of self-inflicted, interpersonal or collective violence, an overall age-adjusted rate of 28.8 per 100,000 population (World Health Organization, 2002). Nearly half of the 1.6 million violence-related deaths were suicides, almost one-third were homicides, and about one-fifth were war-related. The majority of these deaths occurred in low- to middle-income countries, with less than 10% of all violence-related deaths occurring in high-income countries. In 2000, males accounted for 77% of all homicide victims; more than three times the number of females (13.6 and 4.0 per 100,000, respectively). The highest rates of homicide in the world are found among males aged 15–29 years (19.4 per 100,000), followed by males aged 30–44 years (18.7 per 100,000) (World Health Organization, 2002). Rates of violent death vary according to country income levels. The rate of violent death in low- to middle-

income countries was 32.1 per 100,000 population, more than twice the rate in high-income countries (14.4 per 100,000) (World Health Organization, 2002).

1.4.1. Understanding Youth Violence

Rates of risk-taking behaviors vary across cultural, economic, and political contexts and can lead to both positive and negative outcomes depending on how the behavior is perceived. For example, while adolescents may view risk-taking behavior as likely to result in positive outcomes, adults may view many risk-taking behaviors as damaging to health. To illustrate, poor self-esteem appears to be associated with a number of risky behaviors, but there is some evidence showing that risk-taking behaviors can raise self-esteem (Kaplan, Johnson, & Bailey, 1987; McCord, 1990). Furthermore, adolescents do not view risky behavior as bound by societal rules, but consider risky acts in terms of morality and personal choice (Irwin, et al., 1997). The emphasis on personal choice is consistent with concepts of identity formation and the development of autonomy, which are seen as characteristic concerns of adolescence (Killen, Leviton, & Cahill, 1991).

1.5. Risk Factors for Youth Violence

A wide range of risk factors associated with youth violence has been identified. There appears to be a complex interaction between environmental (social, family, peer, and economic) and personal characteristics (personality, attitude, maturity, and psychopathology) that enhances aggressive and violent behavior among adolescents (C. Smith & Thornberry, 1995). For individual factors, the major personality and behavioral factors that have been shown to predict youth violence are hyperactivity, impulsiveness, poor behavioral control, and attention problems. According to longitudinal studies conducted in Denmark, Sweden, the United Kingdom (UK), and US, there are links between some personality traits (hyperactivity, high level of risk-taking behavior, poor

concentration, and attention difficulties) and convictions both for violence and self-reported violence (Brennan, Mednick, & Mednick, 1993; Klinteberg, Andersson, Magnusson, & Stattin, 1993). In addition, low intelligence and low achievement in school have consistently been associated with youth violence (Lipsey & Derzon, 1998).

Individual risk factors for youth violence do not exist in isolation, but interact with other risk factors. Developmental and life course criminology (DLC) theories have extended the notion of criminal careers to consider how individual difference risk factors that occur over the life course are related to particular offending pathways (Farrington, 2003b; National Crime Prevention, 1999). DLC approaches identify two key areas relevant to crime; the relationship between age and crime, and prior and future criminal activity, and attempt to understand the predictors of antisocial behavior. In short, DLC considers individual differences in the stability of antisocial behavior. For example, while many young people behave antisocially, their antisocial behavior can be understood as both temporary and situational. On the other hand, the antisocial behavior of others is both stable and persistent.

1.5.1. **Interpersonal Bonds**. Factors associated with the interpersonal bonds of young people with their family, friends, and peers also strongly influence aggressive and violent behavior and, as such, can be considered to be important risk factors for violent behavior. For example, poor monitoring and supervision of children by parents and the use of harsh punishment are associated with powerful negative outcomes (for example, physical punishment to discipline children is a strong predictor of violence during adolescence and adulthood) (World Health Organization, 2002). Additionally, violence in both adolescence and adulthood has been strongly linked to parental conflict in early childhood (Farrington, 1998a; McCord, 1979) and to poor attachment between parents and children (McCord, 1996; Thornberry, Huizinga, & Loeber, 1995b). Family structure is also

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a significant factor for later aggression and violence; studies in New Zealand, UK, and US have shown that children growing up in single-parent households are more likely to engage in violence (Farrington, 1998a; Henry, Caspi, Moffitt, & Silva, 1996b). The influence of family and peers is also important, with friends and peers having the greatest impact on interpersonal relationships during adolescence while family usually has the greatest impact during childhood. Peer influences during adolescence are generally considered positive and important in shaping social relationships, but can also have negative effects. The results of studies conducted in developed countries (Lipsey & Derzon, 1998; Thornberry, et al., 1995b) are consistent with those conducted in developing countries, particularly in Peru, which have found a correlation between having delinquent friends and violent behavior (Perales & Sogi, 1995).

1.5.2. **Environmental Factors**. The communities in which young people live have an important effect on their families, the nature of their peer groups, and the way they may be exposed to situations leading to violence. In general, boys in urban areas are more likely to be engaged in violence than those who live in rural areas (Elliott, Huizinga, & Menard, 1989a; Farrington, 1998b; Morash & Rucker, 1989). Within urban areas, adolescents who live in neighborhoods with high levels of crime are more likely to be involved in delinquent behavior than those living in other neighborhoods (Farrington, 1998a; Thornberry, Huizinga, & Loeber, 1995a). Furthermore, the degree of social integration within a community may also affect rates of youth violence. Social integration refers to the rules, norms, obligations, reciprocity, and trust that exist in social relations and institutions (Lederman, Loayza, & Menendez, 1999). Young people who live in places that lack social integration tend to perform poorly in school and have a high risk of dropping out (Ayres, 1998).

Low socioeconomic status of the family is also linked to future violence. In a national survey in the US, the prevalence of self-reported assault and robbery among youths from low socioeconomic classes was about twice that among middle-class youth (Elliott, Huizinga, & Menard, 1989b). Similar results have been obtained from studies in Denmark (Hogh & Wolf, 1983), New Zealand (Henry, Caspi, Moffitt, & Silva, 1996a), and Sweden (Hawkins, Henrrenkohl, et al., 1998). Finally, several studies of juvenile delinquency in schools have found that adolescents with low achievement and poor attachment between students and their schools and teachers are more likely to display disruptive behavior and truant from school (Kilgore, 1991; Oakes, 1985).

Significantly for the present research, cultural factors can also influence the amount of violence in a society, for example, by endorsing violence as a method to resolve conflict (see US studies by Rodgers, 1999).

1.5.3. Emotional Factors. The elevated prevalence of violence exposure on youth has been shown to increase internalizing symptoms, such as anxiety, and depression (Rosenthal, 2000; Schwab-Stone et al., 1995; Singer, Anglin, Song, & Lunghofer, 1995). Additionally, frequent exposure to violence appears to have an adverse effect on a child's emotional development – especially in relation to the expression of anger, because children do not learn how to generate effective solutions for managing anger.

1.5.3.1. Anger

Anger can be understood as a state of physiological arousal that results from social situations involving either threat or frustration (Averill, 1982). Anger is, therefore, an internal emotional response with typical psycho-physiological and facial components. Cognitions are thought to play an important role in the experience of anger (Spielberger et al., 1985), with thoughts and attitudes determining the extent to which one assesses the

environment as provocative (anger inducing). Attitudes are more stable over time than thoughts and are associated with what has been termed *trait anger*, or the propensity to experience anger across both time and situations (Spielberger, et al., 1985). Anger arousal is generally considered to be an important antecedent to aggression (Novaco, 1997; Novaco, Ramm, & Black, 2001) and can be distinguished from hostility, which refers to the negative cognitive evaluation of people or events. Both anger and hostility can give rise to the behavioral expression of aggression and, as such, are important determinants of violent behavior.

Anger expression can be understood as the behavioral response to emotion. The expression of anger may be directed inward (anger-in) or away from the self (anger-out). Anger-in involves an attempt to suppress or deny anger affect and to prevent the outward expression of anger. As a result, anger may be internalized and/or directed at the self. Anger expressed outwardly (anger-out) may involve words or noises, facial expressions, physical gestures, or aggressive movements. Originally thought to be extremes of the same continuum (Averill, 1982), it has been suggested that anger-in and anger-out are orthogonal constructs (Spielberger, et al., 1985). Anger arousal, or state anger, may also elicit attempts to process or resolve the conflict or frustration with a response that is more cognitive and less impulsive. This is referred to as anger control/reflection (Harburg, Blakelock, & Roeper, 1979).

1.5.3.1.1. The relationship between anger and violence

The emotion of anger is most commonly identified as an important antecedent to aggressive and violent behavior (Novaco, 1997; Novaco et al., 2001). Youth who have high anger levels appear to be generally more likely to engage in delinquent behavior and violence, with several studies showing that the outward expression of anger is related to

violent behavior (Gudlaugsdottir, Vilhjalmsson, Kristjansdottir, Jacobsen, & Meyrowitsch, 2004; Lundeberg, Stith, Penn, & Ward, 2004; Singer & Flannery, 2000; Thomas & Smith, 2004). For example, a large survey of six public high schools in the US found that a high level of anger was one of the leading causes of psychological stress and violent behavior (Singer & Flannery, 2000). A study conducted in Iceland showed that high anger expression scores were significantly associated with increased violent behavior, with an odds ratio of 1.75 (95% CI=1.41–2.17) (Gudlaugsdottir et al., 2004). More recently, Gelaye et al. (2008) found that 29.5% of college students in Ethiopia reported high anger levels and had engaged in six acts of violence during the current academic year.

1.5.3.1.2. The relationship between depression and violence

Exposure to violence has been consistently shown to relate to various functions of children and youth, including developmental, behavioral, and emotional sequelae. These effects involve a wide range of internalizing psychopathology, such as post-traumatic stress (Fitzpatrick & Boldizar, 1993; Pynoos, Fredeick, & Nader, 1987), anxiety (National Institute of Mental Health, 2006), and depression (Freeman, Mokros, & Poznanski, 1993; Richters & Martinez, 1993; Schwab-Stone, et al., 1995; Schwab-Stone et al., 1999). While the stress response is essential for maintenance of homeostasis and survival, chronic stress and maladaptive responses to stress can lead to depression or other affective disorders (Bale, 2006).

Several studies have documented associations between depression and outward anger expression (Koh, Kim, Kim, & Park, 2005; Richmond, Spring, Sommerfeld, & McChargue, 2001); likewise, there is evidence to show that violent behavior is associated with an increased risk of symptoms of depression (Kaltiala-Heino, Rimpela, Marttunen, Rimpela, & Rantanen, 1999; Salmon, James, & Smith, 1998). A behavioral survey of

school-aged children in the US noted that outward anger expression was associated with an almost threefold increased risk (OR=2.8; 95% CI=2.5–3.1) of feelings of depression among boys (Goodwin, 2006). Similarly, a UK study among 904 secondary school students reported that adolescents with violent behavior acts were 3.3 times more likely to report symptoms of depression (OR=3.3; 95% CI=1.6–6.7) (Salmon, et al., 1998). The positive association between anger expression and symptoms of depression has been reported in many countries (Gudlaugsdottir, Vilhjalmsson, Kristjansdottir, Jacobsen, & Meyrowitsch, 2004; Kitamura & Hasui, 2006; Orpinas, Basen-Engquist, Graunbaum, & Parcel, 1995; Thomas & Atakan, 1993). Recently, an Ethiopian study pointed out that college students with high levels of anger expression were 3.75 times more likely to have depressive symptoms than their counterparts with low levels of anger expression (OR=3.75; 95% CI = 2.85–5.44) (Terasaki, Gelaye, Berhane, & Williams, 2009).

Summary

In sum, the causes of violence should not be considered as being located solely within the individual or within situations. Factors associated with the interpersonal relations of young people within their family, friends, peers, school, and community can strongly affect aggressive and violent behavior and interact with personality traits that, in turn, can contribute to violent behavior. However, most of the current knowledge about youth violence has come from research conducted in Western countries, despite recognition that rates of violence are different between countries. In particular, there is limited information to assess the importance of risk factors for youth violence in Asian counties such as Thailand. Therefore, the first studies of this thesis seek to identify and understand those risk and protective factors that are associated with school-based violence.

The aims of this study are: (a) to investigate the risk factors that are related to violence in technical college students in Thailand; and (b) to clarify the relationship between anger levels and violence.

1.6. Hypotheses and Objectives

This research was conducted in three phases, Phase I (preliminary study), Phase II (cross-sectional study), and Phase III (an intervention study).

Phase I: Preliminary Study

The preliminary study was conducted to clarify how and why young Thai males understand and perform interpersonal violence. This qualitative research was considered essential because of the lack of data about school violence in Thailand and the cultural context in which it occurs.

Objectives

1. To understand the reasons why young men in Thai technical colleges engage in violence.

2. To develop a cross-sectional survey to be used in Phase II.

Phase II: Cross-sectional Study.

The cross-sectional survey was designed to assess prevalence rates of violent behaviors, violent classifications (offenders, victims [direct, indirect], witnesses) and negative emotions (anger and depression) between Bangkok (urban) and Nakhon Ratchasima (sub-urban) provinces. Additionally, the study explored a range of risk and protective factors (individuals, peers, families, schools, and communities) thought to be related to anger

expression and violence among technical college students. In addition, the relationship between violence and depressive symptoms was assessed.

Objectives

1. To compare the prevalence rates of violent behaviors, offenders, direct-indirect victims, witnesses, anger expressions and depression between Bangkok (urban) and Nakhon Ratchasima (sub-urban) regions.

2. To assess the association between individual risk factors, environmental risk factors (peer, family, school, community), and anger expression and depressive symptoms.

3. To evaluate the violence sequelae related to psychological disorders (depression) and anger expression for offenders, victims (direct and indirect), and witnesses.

4. To explore the associated pathways of anger expression, violence exposure, and the development of internalizing problems (depression).

Hypotheses

1. *Hypothesis 1.* The higher rates of violence behaviors, violent classifications (perpetrators, victims [indirect-direct], witnesses), and negative emotions [anger and depression] will be found in urban (Bangkok) than in sub-urban (Nakhon Ratchasima) regions.

2. *Hypothesis* 2. Exposure to violence will be positively related to anger and depressive expressions among offenders, direct victims of violence, and indirect victims of violence in adolescents in technical colleges.

3. *Hypothesis* 3. The presence of risk factors will increase the incidence of violent behavior.

Phase III : Interventions

The intervention programs were designed to assess the effectiveness of two different intervention programs; Mindfulness Mediation (MM), an approach developed as a part of Buddhist culture, and Aggression Replacement Training (ART) as a part of Western therapies.

Objectives

1. To compare two programs (ART and MM) for reducing anger expression.

2. To assess the outcomes (violent behaviors, anger and depression) of implementing and ART and MM in technical colleges.

Hypotheses

1. *Hypothesis 1.* After completion of ART, self-reported rates of anger, depression and violent behaviors will be reduced when compared with controls.

2. *Hypothesis 2.* MM will reduce self-reported rates of anger, depression and violent behaviors compared with controls.

Chapter 2

Literature Review – Defining Aggression and Violence

Youths are defined as people between the ages of 10 and 29 years (World Health Organization, 2002). The exposure of young people to aggression and violence has become a prominent concern within public, political, and academic circles. Evidence indicates exposure to violence in childhood is a major risk factor for problems in later life (Katz, 1997; Saunders, 2003). Motives for youth violence vary according to the age of participants and other factors. In youths aged in their early twenties, about half of violent personal attacks were motivated by excitement (LeBlanc & Frechette, 1989), retaliation for previous attacks, out of revenge, and because of provocation or anger (Agnew, 1990). Anger is a common antecedent of aggressive behavior, and uncontrolled anger can lead to aggression and violence. Research on youth violence has focused on overt forms of aggression, particularly physical assault (Farrington, 1998a; Hawkins, Herrenkohl, et al., 1998; Herrenkohl, Chung, & Catalano, 2004; Lipsey & Derzon, 1998; Reiss & Roth, 1993). Indeed, children who become serious violent offenders often begin as aggressive children, initially perpetrating minor acts of violence and progressing to those of a more serious and potentially harmful nature (Loeber, 1996). Youth who are often exposed to violence are more likely to adopt the aggressive behaviors that they observe. Additionally, youth may also perceive delinquency and aggressive behaviors as providing some protection from the dangers and stresses of violence in their surroundings. The current study aimed to understand how social context and aggression contribute to violence, and to consider how knowledge about the developmental dynamics of aggression and violence can be used to guide the development and implementation of interventions at the primary, secondary, and tertiary levels.

2.1.   Aggression.

Aggression has been defined as any behavior that is directed toward another individual and carried out with the intent to cause harm (Anderson & Bushman, 2002a). Research on aggression has distinguished between two primary types: reactive (temper-related or affective) and instrumental (predatory or premeditated) aggression (Kingsbury, Lambert, & Hendrickse, 1997; Meloy, 2006; Weinshenker & Siegel, 2002), although a variety of other terms has also been used (e.g., angry, affective, reactive, impulsive, hot-blooded versus non-angry, predatory, pro-active, planned, cold-blooded and so on). Despite critiques of this distinction (see K. Howell, Daffern, & Day, 2008), it has had a profound influence on practice. For example, those who are prone to hostile/reactive aggression are likely to be seen as suitable for clinical interventions, such as cognitive therapies for anger and emotional regulation.

Reactive aggression is defined as being impulsive, unplanned, and driven by heightened emotional arousal, and as occurring as a reaction to some perceived imminent provocation. Instrumental aggression is pro-active rather than reactive and is planned, calculated behavior that is goal directed and characterized by an absence of anger emotion. Hostile aggression typically involves a response to a triggering frustrating event, an internal state of emotional arousal, and an impulse to hurt or harm someone who is seen as the perpetrator.

2.1.1.   Aggression Classifications. The range of behaviors that can be classified as aggressive is immense, and includes both covert and overt behaviors (Björkvist, Österman, & Kaukiainen, 1992). Overt aggression describes behaviors that involve a face-to-face interaction between the perpetrator and victim (e.g., verbal and physical aggression). Physical aggression can be defined as physical acts that are directed

to another person which may cause bodily harm e.g., kicking, punishing, hitting (Cairns, Cairns, Neckerman, Ferguson, & Gariepy, 1989; Straus & Gelles, 1990; Tremblay, 2000). In contrast, covert aggression is indirect in nature and describes behaviors such as spreading of rumors, ostracizing people, and gossiping. Indirect aggression may be physically manifested in acts such as destroying another person's property (Archer, 2000). Indirect aggression does not usually involve direct confrontation, and because of its covert nature it is more difficult to measure than physical aggression.

      2.1.2.   **Aggression and Gender.** Whilst both sexes use direct and indirect forms of aggression (Côté, Vaillancourt, Barker, Nagin, & Tremblay, 2007) men are generally more aggressive than females, especially when direct forms of aggression (e.g., physical or verbal) are considered. Conversely, females generally use indirect forms of aggression more than males (e.g., psychological, social) (Archer, 2000). One possible explanation for this is that women have a greater concern for the protection of their own lives than men. In addition, the cost of direct physical aggression, which poses a significant risk to personal safety, is typically significantly higher for women than it is for men. Similarly, a review by Archer and Coyne (2005) concluded that indirect aggression is an alternative strategy to direct aggression, enacted when the costs of direct aggression are high, and whose aim is to socially exclude or harm the social status of a victim.

      2.1.3.   **Aggression and Age.** Childhood and adolescent aggression is an important risk factor for delinquent and violent behavior occurring later in the life course (L. M. Broidy et al., 2003; Loeber & Hay, 1997; Moffitt, 1993a). The manifestations of aggression change dramatically through childhood, adolescence, and early adulthood. As such, understanding aggression requires knowledge about the onset of the behaviors, how they change with age, and their continuity over time (Loeber & Le Blanc, 1990). In the following sections, the experience of aggression is considered across the lifecycle.

2.1.3.1. *Infancy.* The expression of anger emerges in tandem with the cognitive changes occurring in the second half of the first year of life, when infants begin to understand cause-and-effect relations. By twelve months, actions that lead to conflict among older individuals provoke either protest or retaliation (Caplan, Vespo, Pedersen, & Hay, 1991). At this stage of development, boys are more emotionally labile than girls and express both positive and negative emotions at higher rates. Infant girls are thought to be better able to regulate their own emotional states, whereas boys depend more on input from their mothers. Infant boys are more likely than girls to show anger (Weinberg & Tronick, 1997).

2.1.3.2. *Toddlerhood.* During the second and third years of life, behavioral signs of temper tantrums and aggression toward adults and peers can be observed, and a few gender differences are present. In observations of small groups of one- and two-year-olds, groups with a majority of females were more likely than groups with a majority of males to come into conflict and to use personal force (Caplan, et al., 1991).

2.1.3.3. *The early school years.* Gender differences in levels of aggression become marked in the years between the third and sixth birthdays, a time at which children first participate in organized peer groups for education or day-care purposes. Males show higher rates of physical aggression (both instrumental grabbing of objects and personal force) than girls (for reviews, see Coie & Dodge, 1998; Hay, 1984). Both girls and boys report fairly high rates of physical aggression with their siblings (Dunn, 1993).

2.1.3.4. *Adolescence and early adulthood.* Several major changes in the levels and patterns of aggression occur during adolescence and early adulthood. These are of particular relevance to understanding violence in students of high school age. During middle childhood and continuing into early adolescence, girls and boys spend much of

their time in gender-segregated groups (Cairns & Kroll, 1994; Maccoby, 1988), and most instances of conflict occur between members of the same sex. In middle childhood, girls also engage in direct physical aggression, although conflicts tend to become less violent as they grow older. Boys' disputes, on the other hand, continue to be characterized by aggression and other forms of direct confrontation (Cairns & Cairns 1994; Olweus 1991).

Group relations may promote aggression and other forms of delinquency to such an extent that these activities may be seen as almost normative during adolescence (DiLalla & Goottesman, 1989; Moffitt, 1993b). Better organized gangs emerge in early adolescence. They are characterized by particular forms of dress, insignia, or hand symbols and often engage in violence (J. C. Howell, 1995; Klein, 1995). The presence of gangs is associated with increased availability of guns and high levels of delinquency and violence (Bjerregaard & Lizotte, 1995; J. C. Howell, 1995).

Age of Onset

Late

Early

% Boys

Few

Many

Violence (rape, attack, strongarm

MOD to Serious Delinquency (fraud, burglary, serious theft)

Physical Fighting (Physical fighting, Gang fighting)

Property Damage (Vandalism, Fire setting)

Authority Avoidance (truancy, running away, staying out late)

Minor Aggression (Bullying, Annoying others)

Minor Convert Behavior (Shoplifting, frequent lying)

Overt Pathway

Covert Pathway

Defiance/Disobedience

Stubborn Behavior

Authority Conflict Pathway

Figure 1. Three Pathways to Boys' Problem Behavior and Delinquency

(Loeber & Hay, 1997).

Figure 1 (above) illustrates how the age of onset of aggression gradually increases for each level of severity of aggression and that there is developmental ordering of the seriousness of aggression with age. Minor aggression emerges from age 10 onward; fighting is followed by the onset of violence, which accelerates from age 11 onward. Loeber and associates (Loeber, Keenan, & Zhang, 1997a; Loeber, Smalley, Keenan, & Zhang, 1997b; Loeber et al., 1993) found evidence for three developmental pathways for males during childhood and adolescence (see Figure 1). The Overt Pathway identifies aggression (annoying others, bullying) as occurring at the first stage, physical fighting (fighting, gang fighting) at the next stage, and violence (attacking someone, strong-arming, forced sex) at

the third stage. The other two pathways are the Covert Pathway, consisting of an escalation in covert, concealing problem behavior, and an Authority Conflict Pathway, which concerns conflict with and avoidance of authority figures.

2.2. Violence Definition and Typology

The definition of violence developed by a WHO working group in 1996 was: "*The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation*" (WHO Global Consultation on violence and health, 1996, pp. 2-3). This definition encompasses all types of violence, including psychological harm, deprivation and maldevelopment, and covers the wide range of acts of commission and omission that constitute violence. According to the WHO report, violence can be conceptualized in relation to three broad categories: self-inflicted, interpersonal, and collective.

- *Self-inflicted violence* refers to violence in which the perpetrator and victim is the same individual. It can be subdivided into self-abuse and suicidal behavior. Suicidal behavior consists of suicidal thoughts, attempted suicides (parasuicide), and deliberate self-injury. Self-injury can be considered to be part of Deliberate Self-Harm (DSH), which is a widely used behavioral description that helps to overcome the confusion that arises by classifying acts as either suicidal or parasuicidal (Harris, 2000).

- *Interpersonal violence* or direct violence is defined as "behavior by persons against persons that intentionally threatens, attempts, or actually inflicts physical harm" (Reiss & Roth, 1993, p. 35). It can be separated into two subcategories, family and intimate partner violence and community violence. Family and intimate partner violence is violence that occurs between family members and intimate partners and

which takes place in the home. It includes forms of violence such as child abuse, intimate partner violence, and abuse of the elderly. Community violence is violence between individuals who are unrelated, and who may or may not know each other. It generally takes place outside the home, and includes youth violence, random acts of violence, rape or sexual assault by strangers, and violence in institutional settings such as schools, workplaces, prisons, and nursing homes.

- *Collective violence* is defined as "the instrumental use of violence by people who identify themselves as members of a group against another group or a set of individuals, in order to achieve political, economic, or social objectives" (World Health Organization, 2002, p. 5). Unlike the other two broad categories, the subcategories of collective violence may suggest possible motives for violence committed by large groups of individuals or by states. Collective violence can be subdivided into social, political, and economic violence and includes armed conflicts, genocide, terrorism, human rights abuses, and organized violent crime.

Summary

Aggression and disobedience is a phase that usually desists after childhood but it may be pervasive from childhood through adolescence and into adulthood (Moffitt, 1993). Several studies have shown that childhood aggression is a good predictor of violence in adolescence and early adulthood. Understanding the developmental factors that lead to an increased risk of violent behavior is essential for developing effective interventions and policy.

Chapter 3

Theories and School Violence

3.1.   Sociological and Criminological Theories of Youth Violence

Research in any area is based on theory; accordingly theories provide structured interpretations or models for investigating and understanding a problem. Sociological and criminological theories may explain how fundamental forms of social stratification, including race, ethnicity, class, and gender, influence crime. For instance, DLC (Developmental and Life Course Criminology) is especially concerned with documenting and explaining within-individual changes in offending throughout life. GST (General Strain Theory) focuses on stress leading to negative emotions, particularly anger and depression, and ultimately to delinquency. Masculinity theory also provides useful reference points in understanding how male dominance may be related to offending patterns. Finally, social capital may also affect violent crime through its influence on levels of social control.

3.1.1.   Developmental and Life Course: DLC (Risk and Protective Factors)

DLC theories of offending (Farrington, 2005, 2006) have become increasingly influential in explaining desistance from crime, or a decrease in the underlying frequency, variety, or seriousness of offending. DLC theories aim to define the development of offending with age and to consider the influence of risk and protective factors at different ages and the effects of life events on the course of development. DLC theories claim that the various factors indicating individual offender behavior at different ages are a true indicator of variations with age in basic tendencies such as antisocial possibility or criminal propensity.

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The frequency of offending at any period of life is not only associated with the intensity of the underlying construct but also on surrounding factors, including chance and cognitive processes. Hence, desistance should be influenced by all of these factors. DLC, which focuses on all types of anti-social and criminal activity across the life course, studies the temporal, within-individual changes in offending over time (Le Blanc & Loeber, 1998, p. 117) and focuses on two primary areas of study. The first concerns the development and dynamics of offending by age, and the second concerns the identification of explanatory or causal factors that predate or co-occur with the behavioral development and have an effect on its course (Le Blanc & Loeber, 1998). This theory attempts to understand why antisocial behavior in children is one of the best predictors of antisocial behavior in adults, even though many antisocial children do not become antisocial adults.

A possible explanation is that the offender population comprises two distinct groups, life-course-persistent, early-start offenders who offend over the long term, and adolescence-limited who are late-start offenders who restrict offending to the adolescent period and desist relatively quickly as early adulthood approaches. Moreover, the causes of antisocial and criminal activity across the two groups are also expected to vary. Among the more seriously violent, early-start offenders, the causes of crime are typically found in the combination of neuropsychological–cognitive deficits and compromised environmental circumstances, whereas among the less seriously violent, late-start offenders, the causes of crime are located most directly in the adolescent peer social context (Moffitt, 1993b; Patterson, DeBaryshe, & Ramsey, 1989).

3.1.2. Masculinity

The term "hegemonic masculinity" was first introduced into the feminist and profeminist debate by Carrigan, Connell, and Lee (1985) and has been subsequently

developed by Connell (1987, 1995, 1996, 2000). Connell offers a valuable insight into how power can be incorporated into an analysis of masculinity and defines hegemonic as "culturally exalted" or "idealised" (Connell, 1990), while some researchers identified the hegemonic term as "standard-bearer of what it means to be a 'real' man or boy" (Kenway & Fitzclarence, 1997). In direct contrast to hegemonic masculinity are subordinate modes of masculinity that are 'controlled', 'oppressed', and 'subjugated'. The hegemonic form constructs itself in direct relation to subordinated masculinities in order to create subordinate forms to maintain itself (Skelton, 2001).

Crime and masculinity studies have pointed out that masculinity, especially hypermasculinity, drives male offending (e.g.,Beirne & Messerschmidt, 2007; Connell & Messerschmidt, 2005; Messerschmidt, 2004; Mullins, 2006). Hypermasculinity is linked to antisocial behavior, the excessive use of drugs and alcohol, and to beliefs that violence is manly and danger is exciting (Kreiger & Dumka, 2006; Mosher & Tomkins, 1988). From this viewpoint, masculinity may produce crime because certain situations and environments required hypermasculine performances, identities, and behavior (West & Zimmerman, 1987).

Hegemonic masculinity may not be the most common form of masculinity practiced but it is supported by the majority of men because they benefit from the overall subordination of women; what Connell (1995) terms the "patriarchal dividend" (p. 82). According to Connell, the patriarchal dividend benefits men in terms of "honour, prestige and the right to command," as well as in relation to material wealth and state power. Structurally, men as an interest group are inclined to support hegemonic masculinity as a means to defend patriarchy and their dominant position over women or others. The strength of hegemonic masculinity as a theoretical tool lies in its ability to describe the

layers of multiple masculinities at the structural level and the intricacies of their relations to one another, and to recognize the fluidity of gender identities and power (Hearn, 2007).

3.1.3. Social Capital

Social networks refer to the ties between individuals or groups and could be considered the structural element of social capital. In terms of social capital, networks have been distinguished on a number of dimensions, including formal and informal. Formal networks consist of those developed through formal organizations such as voluntary organizations and associations. Informal networks (such as friendship, family, neighbor, and work related ties) have also been included, particularly in relation to their role in providing resources such as social support.

There are three types of social capital, bonding, bridging, and linking (Narayan, 1999; Putnam, 2000; Szreter & Woolcook, 2004). Bonding social capital refers to the 'horizontal' ties between members of a network who see themselves as similar, and can be compared to the concept of social cohesion within specific social groupings (Harpham, Grant, & Thomas, 2002; Locher, Kawachi, & Kennedy, 1999). Bridging social capital comprises links across different groups in society that do not necessarily share similar social identities, and refers to the (perceived) levels of social justice, solidarity and mutual respect in society as a whole. Linking social capital is a specific form of bridging social capital that applies to 'vertical' interactions across explicit, formal, and institutionalized power or authority structures in society.

Social capital affects crime through its influence on levels of social control (Rosenfeld, Messner, & Baumer, 2001). This concept attempts to measure community integration which is composed of the rules, norms, obligations, reciprocity and trust that exist in social relations and instructions (Lederman, et al., 1999). The degree of social

integration within a community also affects rates of youth violence. Young people living in places that lack social capital tend to perform poorly in school and have a greater probability of dropping out altogether (Ayres, 1998).

3.1.4. General Strain Theory

Agnew (1992) stated that strain refers to "relationships in which others are not treating the individual as he or she would like to be treated" (p.48). As definitions, there are two terms to determine strain, an objective event or condition (e.g., the infliction of physical abuse, the receipt of poor grades at school), and a subjective event or condition (e.g., whether juveniles like the way their parents or teachers treat them).

Objective strains refer to events or conditions that are disliked by most members of a given group. Hence, if an individual is experiencing objective strain, it indicates that he/she is experiencing an event or condition that is usually disliked by members of his or her group. Subjective strains refers to events or conditions that are disliked by the people who are experiencing (or have experienced) them. Therefore, if individuals are experiencing subjective strain, they are experiencing an event or condition that they dislike. In addition, general strain theory states that stress leads to negative emotions and ultimately to delinquency (Agnew, 1985, 1992).

The specific stresses discussed in the theory including failure to achieve positively valued goals, the removal of positively valued stimuli, and the presentation of negatively valued stimuli. These stresses could lead to negative emotions, such as anger and depression. Anger is particularly relevant for understanding the link between stress and delinquency because this emotion energizes individuals for action, increases feelings of injury, and leads to the desire for retaliation (Agnew, 1985). In short, anger is conducive to delinquency and serves as a mechanism through which stress leads to delinquency. This is

because delinquency provides an angered individual with opportunities to seek revenge against those responsible for inflicting stress, escape stressful situations, or achieve thwarted goals (Agnew, 1985, 1992).

General strain theory (GST) relates to criminal behavior; where strain (i.e., stress) contributes to negative emotion this may be alleviated by various criminal actions (Agnew, 1992). For instance, anger creates a desire for revenge and motivates a person for action, so anger is mediating factor for interpersonal aggression and violent crime (Baron, 2004b; L. Broidy, 2001; Capowich, Mazerolle, & Piquero, 2001; Hay, 2003; Mazerolle, Piquero, & Capowich, 2003; Piquero & Sealock, 2000a; Sigfusdottir, Farkas, & Silver, 2004). Numerous empirical studies have generated results that support key GST propositions (Agnew & Brezina, 1997; Agnew, Brezina, Wright, & Cullen, 2002; Agnew & White, 1992; Aseltine, Gore, & Gordon, 2000; Baron, 2004a; L. Broidy, 2001; Hoffmann & Su, 1997; Mazerolle & Maahs, 2000; Paternoster & Mazerolle, 1994).

Studies have consistently shown that individuals exposed to various types of strain are more likely to engage in delinquent behaviors. Several tests of a full model of GST have additionally found that negative emotions, especially anger, moderately mediate the connection of strain to delinquency (Aseltine, et al., 2000; Mazerolle & Piquero, 1997; Mazerolle, et al., 2003; Piquero & Sealock, 2000b). Specifically, research has documented that strain predicts anger, which in turn predicts deviance (Agnew, et al., 2002; Mazerolle & Maahs, 2000; Mazerolle & Piquero, 1997).

3.2.   Empirical Research on Violence.

There are numerous factors predicting the onset and maintenance of physical violence in youth, including individual involvement, family relations, school attachment, and neighborhood factors (Loeber, Farrington, & Waschbush, 1998). The development of

violent behavior is a complex process that is influenced by the challenges of the developmental period of adolescence.

3.2.1. Risk Taking in Adolescence

Adolescence is generally defined as the teenage years from the onset of puberty to the time when young people are considered to reach adulthood. The stages of adolescence are not clearly defined but generally refer to the following: children aged 10–12 years are generally defined as being in 'late childhood' or 'pre-adolescence'; those aged 12–14 years are considered to be in 'early adolescence'; those aged 15–17 years are in 'mid adolescence'; and those aged 17–19 years are in 'late adolescence' moving into 'early adulthood', which applies to those aged 18–24 years or to 29 years of age (World Health Organization, 2002). The period of adolescence is characterized by multiple transitions (puberty, relationships, school, abilities), and by an increase in risk-taking behaviors (Michael & Ben-Zur, 2007). Problem behavior can be considered as a means of performing age-typical goals of peer group identity and adult status (Jessor, 1977). Social and environmental concepts emphasize the influence of parents, peers, teachers, community, and culture on risk-taking during adolescence. This time is conceptualized as a period of growing autonomy and emerging individualization from the family (Igra & Irwin, 1996), while remaining dependent upon parents and other significant adults.

Risk-taking among adolescents is defined as young people with limited experience engaging in possibly harmful behaviors with or without understanding the consequences of their actions (Irwin & Ryan, 1989). In addition, risk-taking can be seen as a struggle against the influential discourse of others and as a mechanism for creating a discourse of their own. For instance, adults define what is sensible or irrational, appropriate or offensive; in other words, they define the boundaries between what is acceptable and what

is considered deviant. Adolescents may be tempted to push and cross these boundaries, which could be considered as normal adolescent behavior. Michael and Ben-Zur (2007) mentioned that overall risk-taking behaviors start at an early age, with young people indicating that they want to 'feel how it is', or to 'prove that they can do so'. These behaviors increase across the adolescent period, and are more common among boys than girls. This could explain the increased incidence of knife attacks, suicides, and gun-related activity, with peers attempting to prove themselves to a group (or to society as a whole). Adolescents may identify illegal actions as more 'risky' than those that may be legal but could be considered to be socially sanctioned (for example, smoking or drinking). Youths may not view risky behaviors as bound by societal conventions, but rather in terms of morality and personal choice (Killen, et al., 1991). The emphasis on personal choice is consistent with concepts of identity formation and the development of autonomy, which are seen as classic behaviors of adolescence.

Reviews of the literature on risk factors have concluded that there are multiple pathways associated with violence. Risk factors do not operate in isolation, in that the more risk factors a child is exposed to, the greater the likelihood that he or she will become violent. Nonetheless, no single risk factor, pathway, or combination of factors can predict with absolute accuracy who will become violent. Risk factors are not solely within the individual, but are also within situations. This is reflected in social–ecological theories of youth violence that view violence as a joint product of the individual and situational context (Elliot, Hamburg, & Williams, 1998). One of the outstanding contemporary theories of crime and delinquency is developmental taxonomy (Moffitt, 1993b), which identifies the way criminal behavior develops over the life course. There are specifically two types of offenders identified, life course persistent (LCP) and adolescence limited (AL) offenders. LCP offenders, according to Moffitt, have an early onset of their criminal

career, exhibit a greater frequency of offending, commit more serious acts of delinquency, and are less likely to desist from antisocial behavior than AL offenders. On the other hand, AL offenders do not display antisocial behavior in childhood—their offending is limited to the adolescent years.

3.2.1.1.   Individuals.

At the individual level, factors that affect the potential for violent behavior include biological, psychological, and behavioral characteristics. These factors may already appear in childhood or adolescence to varying degrees, and they may be influenced by the person's family and peers and by other social and cultural factors. Each is discussed in turn below.

3.2.1.1.1.   *Biological characteristics*. Although it is widely accepted that the environment plays a large role in the occurrence of violent behavior and that biology is only one contributing factor, increased levels of testosterone and reduced levels of serotonin have been shown to increase aggressive behavior in both men and women (Studer, 1996). Higher testosterone levels may account for men showing more aggressive behavior than women across cultures (Studer, 1996). In addition, polymorphisms of the monoamine oxidase A (MAOA) gene appear to affect the likelihood that maltreated children will develop antisocial behavior as they grow up (Caspi et al., 2002; Kim-Cohen et al., 2006; Widom & Brzustowicz, 2006). Impulsiveness, attention problems, low intelligence, and low educational attainment may all be linked to deficiencies in the regulating functions of the brain, located in the frontal lobes that are responsible for sustaining attention and concentration, abstract reasoning and concept formation, goal formulation, anticipation and planning, effective self-monitoring, and self-awareness of behaviors.

3.2.1.1.2.   *Psychological and behavioral characteristics*. There are major personality and behavioral factors that may predict youth violence, including hyperactivity, impulsiveness, poor behavioral control, and attention problems. Low intelligence and low levels of achievement in school have also been found to be consistently associated with youth violence (Larrain, Vega, & Delgado, 1997).

3.2.1.2.   Family influences.

The relationship between parent–child interactions and delinquency is not straightforward because it involves a variety of family variables (e.g., parental attachment, hostility, rejection, supervision, and involvement) that influence adolescents' antisocial behavior. Hoge, Andrews, and Leschied (1994), for instance, classified family variables into two distinct and broad dimensions of relationship and structuring. The relationship dimension of parenting addresses concepts such as parental attachment, involvement, acceptance, and rejection. Several studies have found a positive association between negative parental relationships and juvenile criminal activity (Farrington, 1989; Hanson, Henggeler, Haefele, & Rodick, 1984; Henggeler et al., 1986; Tolan, 1988; Williams, 1994). On the other hand, high levels of parental involvement are able to function as a protective factor against violence (Hawkins et al., 2000). The structuring dimension includes constructs such as monitoring, supervision, control, and discipline. This dimension has provided ample evidence for the positive relationship between inadequate structural parenting practices and delinquency (Capaldi & Patterson, 1996; Farrington, 1989; Patterson & Stouthamer-Loeber, 1984; Snyder & Patterson, 1987; Van Voorhis, Cullen, Mathers, & Garner, 1988).

Violence in adolescence and adulthood has also been strongly linked to parental conflict in early childhood (Farrington, 1998b; McCord, 1979) and to poor attachment

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between parents and children (McCord, 1996; Thornberry, et al., 1995b). Findings from New Zealand, the UK and the US showed that children growing up in single-parent households were at greater risk for violence (Farrington, 1998b; Henry, et al., 1996a). Violent youths are also more likely than nonviolent youths to have experienced (a) high family conflict and low family cohesion; (b) insufficient parental monitoring; and (c) erratic, inconsistent, arbitrary, and overly punitive (or even abusive) discipline practices (Gorski & Pilotto, 1993). Poor monitoring and supervision of children by parents and the use of harsh, physical punishment to discipline children are strong predictors of violence during adolescence and adulthood (McCord, 1979). Parental divorce and interparental conflict are linked to a number of antisocial outcomes (Capaldi & Patterson, 1991; Carr & VanDeusen, 2002; Neighbors, Forehand, & Bau, 1997). Lack of structure or family rules and inconsistently observed limits are evident in at-risk families. When the few established rules or limits are not consistently enforced, aggressive behavior may be viewed as acceptable (Oliver & Oaks, 1994). Therefore, when family life is unstable and prone to change, children may be more apt to commit violence.

3.2.1.3. Peer influences

Peer influences during adolescence are generally considered important in shaping interpersonal relationships, and they can also have negative effects related to violence (Thornberry, Huizinga, & Loeber, 1995c). Elliot and Menard (1996) indicted that delinquency caused peer bonding and that bonding with delinquent peers led to delinquency. As a result, peers influence youths' beliefs, attitudes, and behavior about what are appropriate behaviors. Having delinquent peers is characterized as the most robust predictor of delinquency (Kornhauser, 1978). The interrelationships among gender, peer friendship networks (e.g., sex composition and exposure to peer violence), and serious violence is an important topic of criminological inquiry for three main reasons. First,

friendship networks are central in the unfolding of adolescence. Adolescents spend considerable time with their friends, attribute great importance to their friendships, and appear to be more strongly influenced by friends than any other age group (Giordano, Longmore, & Manning, 2006; Warr, 2002). Second, delinquency is typically a group phenomenon that involves co-offenders. Peer influence is measured as having delinquent friends who are widely recognized as a powerful predictor of an adolescent's own delinquency (Warr, 2002). Third, adolescent peer relations in boy groups emphasize dominance and competition more than in girl peer groups. Although there is strong evidence that delinquent peers and delinquent behaviors are strongly related, only a few studies have incorporated Asian ethnic groups into their samples.

3.2.1.4. Community influences

Within urban areas, adolescents living in neighborhoods with high levels of crime are more likely to be involved in violent behavior than those living in other neighborhoods (Farrington, 1998b; Thornberry, et al., 1995b). In addition, community disorganization, low attachment to the neighborhood, availability of drugs, neighborhood adults involved in crime, and lack of enforcement of antiviolence laws are shown to be risk factors for later youth violence (Herrenkohl et al., 2000). For instance, adolescent males from large city schools had the highest rates of witnessing severe violence such as stabbings and shootings (38%–62%). Exposure to high levels of community violence led to defensive and offensive fighting, as well as other serious high-risk behavior (e.g., alcohol and drug use, carrying knives and guns, trouble in school) (Bell & Jenkins, 1993).

3.2.1.5. School attachment

Prior research studies have consistently documented positive relationships among delinquency and school-related variables such as poor academic achievement (Denno,

1990; Maguin & Loeber, 1996), low attachment to school (Catalano & Hawkins, 1996), low educational commitment (Herrenkohl et al., 2000; Hirschi, 1969; Williams, 1994), spending less time on homework (Cernkovich & Giordano, 1992), and getting low grades (Maguin et al., 1995). A number of prior studies have also examined the role of school commitment and performance as protective factors for high-risk delinquent youth. It was found that commitment to school, attachment to teachers, education aspiration, and expectations about attending college reduced the level of both delinquency and drug use among high-risk youth (C. Smith & Krohn, 1995).

3.3.   Youth Violence

In 2000, approximately 199,000 youth homicides (9.2 per 100,000 population) occurred worldwide. In other words, an average of 565 children, adolescents, and young adults between the ages of 10 and 29 years die each day as a result of interpersonal violence. Homicide rates vary considerably by region, ranging from 0.9 per 100,000 in the high income countries of Europe and some parts of Asia and the Pacific, to 17.6 per 100,000 in Africa and 36.4 per 100,000 in Latin America. There are also wide variations between individual countries in youth homicide rates. Apart from the USA, where the rate remains at 11.0 per 100,000, most of the countries with youth homicide rates above 10.0 per 100,000 are either developing countries or countries experiencing rapid social and economic changes. The countries with low rates of youth homicide are in Western Europe, such as France (0.6 per 100,000), Germany (0.8 per 100,000), and the UK (0.9 per 100,000), or in Asia, such as Japan (0.4 per 100,000). Nevertheless, when considering other Asian countries, Philippines showed the highest homicide in Asia with 12.2 per 100,000, followed by Thailand (6.2 per 100,000) (World Health Organization, 2002).

3.3.1. Youth Violence in Thailand

In Thailand, a country in South-East Asia, violence is a major public health issue, particularly for young people. In 2004, assault was the fourth-highest cause of death (4.9 per 100,000 per annum), with the severity of physical harm being higher in young adults (15–19 and 20–24 years). Physical assaults related to severe injury affected approximately 30,000–50,000 people per annum and led to approximately 3,000–5,000 deaths between 2000 and 2004 (World Health Organization-Kobe Centre, 2007). The male death rate was 9–13 per 100,000 while female mortality was 1.6–2 per 100,000. In 2004, the highest age-specific death rate was for those aged 15–19 years at 8.3 per 100,000 population. In 2009, nearly 3,000 young people were arrested for physical assault in Bangkok alone, which represented an increase of nearly 50% over 2008 figures (Royal Thai Police, 2009). Most of those arrested were students from technical colleges enrolled in vocational educational programs, in which nearly 90% of the students are male (Vocational Education Commission, 2010).

3.4. School Violence

School violence is a major problem affecting students' learning environment around the world (Akiba, Le Tendre, Baker, & Goesling, 2002). Violence in school is now conceptualized as a multifaceted construct that influences both criminal acts and aggression in schools, which could inhibit development and learning. Acts of violence that threaten the security of schools attack a core value of social system: that school is a significant place of shelter and nurturance for youth. School violence reflects a broad community concern about youth violence and how violence affects the schooling process.

3.4.1. School Violence Definitions

School violence is considered "school-associated" if such behavior takes place on school grounds, while travelling to or from school, or during school-sponsored events (M. Furlong & Morrison, 2000). Epp and Watkinson (1997) defined systemic school violence as "any institutional practice or procedure that adversely impacts on individuals or groups by burdening them psychological, mentally, culturally, spiritually, economically, or physically" (p. 4). D. H. Kelly and Pink (1982) defined school violence as disrespect to teachers and administrators, theft, and physical assaults, while other studies have focused on severe behaviors such as rape, robbery, and assaults (Alexander & Langford, 1992). In addition, a study that addressed the victims' perceptions defined violence as "any physical or psychological assault, or threat of assault, of students on other students or teachers in school which are perceived as violent by victims" (Akiba, et al., 2002, p. 836). Some researchers have integrated these into broader definitions including verbal and physical assault, quarrels with peers, rape, or homicide (Moyer, 1987; Warner, Weist, & Krulak, 1999).

3.4.2. School Violence Overview.

In a study of school violence in 37 nations, the findings showed that the national rates of school violence were 30% in the US, 75% in Hungary, and 6% in Denmark. In more than half the nations, more than one out of four students reported being afraid of violence in school. In incidents of violence, 80% of Hungarian students and more than 15% of Singaporean students reported that their friends were victims of violence in school. In about half the nations in the study, one out of two students reported that their friends had been victims of violence in the past month. It is clear that school violence is a major issue around the world (Akiba, et al., 2002).

In the US during the 1996–1997 school year 57% of the 1,234 schools studied reported one or more incidents of violence in which police authorities were contacted. In the same period 1,000 crimes were reported per 100,000 students in public schools. This figure included 950 less severe crimes (theft, vandalism, assault without a weapon, etc.) and 50 severe crimes (murder, sexual violence, suicide, etc.) (Heaviside et al., 1998). In 2002, over 16,000 antisocial acts were committed each school day, which was equivalent to one act every six seconds (Federal Bureau of Investigation, 2002). The level of fighting and simple assaults remained high because of the relatively greater seriousness and lethality of recent forms of school violence.

The US Centers for Disease Control and Prevention (CDC) (1996) conducted a national survey among high school students. The findings showed that over a 1-year period, 46% of males and 30% of females had been in a fight, some of them requiring medical treatment. Another national survey of students in grades 7–12 revealed that males were more likely to be involved in fights on school property than females in the same grade over 12 months. However, the number of fights decreased for males (29.4% to 15.5%) and females (29.4% to 5.6%) as they progressed through high school (Kingery, Coggeshall, & Alford, 1998). Furthermore, the carrying and use of weapons on school grounds is becoming a particularly serious problem, with weapons becoming become increasingly available, even to minors. In the US, a nationwide school-based assessment of high school students found that one in five students in Grades 9 through 12 carried a firearm, knife, or club at least once during the month prior to the survey's administration. Cutting instruments (knives, razors) were the most commonly carried weapons (CDC, 1996).

Another cross-national study showed that prevalence of school violence perpetration was 48.3% in Italy (Baldry, 2003), 38% in England (Boulton & Underwood,

1992), 25% in Australia (Slee, 1995), 24.4% in South Korea (Yang, Kim, Kim, Shin, & Yoon, 2006) and up to 40.7% in Japan (Ando, Asakura, & Simons-Morton, 2005). A recent national survey in Taiwan found that junior high school students reported slightly higher perpetration rates (68%) than elementary school students (58.8%), academic high school students (53.0%) and vocational high school students (60.4%). The findings suggest that rates of perpetration of school violence differ between school types (Chen & Avi Asotor, 2009).

In Thailand, there has been only one study reporting school violence prevalence rates, the Youth Risk Behavior Survey self-report in Bangkok. The results revealed that 6.3% of secondary school students (Grade 7 to 12) had carried a weapon (e.g., gun, knife, or club) on school properties and 8.5% in other places, whereas 7.1% of them had felt insecure on the way to school. In the previous 12 months, 28.9% students had been involved in violent situations that occurred in school and 31.5% were involved outside school property. In total, 13.9% had been physically assaulted, and 6.7% had been injured and needed medical treatments (Ruangkanchanasetr, Plitponkarnpim, Hetrakul, & Kongsakon, 2005).

3.4.3.   Risk Factors for School Violence

Numerous risk factors have been identified for school violence (Verlinden, Hersen, & Thomas, 2000) including individual, peer, family, community, and school factors, similar to youth violence. As a result, at-risk adolescents may be exposed to violence that occurs in multiple life settings, such as violence in the community, family, and school. Indeed, violence taking place in one setting (e.g., community) often co-occurs with violence in other settings (e.g., school) (Lynch & Cicchetti, 1998; Margolin & Gordis, 2000).

Students at risk of committing violence exhibit demographic, social, cultural, and individual characteristics that place them at greater risk. Gender, age ethnicity, past victimization, and drug or alcohol use are among many factors that contribute to youth violence at school (e.g., Bulach, Fullbright, & Williams, 2003; Cornell & Loper, 1998; Craig, 1992; Furlong & Morrison, 2000; Furlong, Casas, Corral, Chung, & Bates, 1997; Olweus, 1978; Osofsky & Osofsky, 2001; Soriano & Soriano, 1994). In addition, parents may be more negligent or more controlling, which could place their children at greater risk (e.g., Craig, 1992; Oliver & Oaks, 1994). School environment, size, location, physical condition, ethnic distribution, and policies all play a role in the amount, type, and severity of violence (Dwyer, Osher, & Hoffman, 2000; Heaviside, et al., 1998). In addition, several self-report surveys reveal that physical aggression is less frequently perpetrated than verbal aggression, and threats with a weapon are less frequently made than threats without weapons. Fights related to physical injury are less common than those than do not result in injury. Indeed, the most common forms of school-based violence are predominantly verbal bullying and sexual harassment (American Association of University Women Educational Foundation, 2001; DeVoe et al., 2002; Gottfredson et al., 2000; Greene, 2000; Nansel et al., 2001).

3.4.3.1. Bullying. Studies of bullying and school-based violence originated in Scandinavia with Olweus's (1978) early work and focused on the systematic mapping and description of bullying behaviors in Norway. Bullying is extremely destructive to school environments because it is a physical and emotional form of violence that is directed toward weaker students and sustained by social norms. Bullies are also more likely to commit future violence (Osofsky & Osofsky, 2001).

3.4.3.1.1. *Bullying Definitions*. Bullying is defined as any type of physical or verbal abuse intended to harm or hurt directly a person who is unable to

defend him or herself and continued for a long period of time (Bulach, Fullbright, & Williams, 2003; Olweus, 1978). The definition of bullying is widely agreed on in the literature on bullying (Boulton & Underwood, 1992; Olweus, 1978; Slee, 1995), in which (a) the behavior is intended to harm or disturb, (b) the behavior occurs repeatedly over time, and (c) there is an imbalance of power, with a more powerful person or group attacking a less powerful one (Nansel, et al., 2001). This asymmetry of power may be physical or psychological, and the aggressive behavior may be verbal (e.g., name calling, threats), physical (e.g., hitting), or psychological (e.g., rumors, shunning/exclusion).

3.4.3.1.2. ***Bullying classifications.*** Even though the empirical differentiation between bullying and aggressive behavior is unclear, most empirical research has conceptualized bullying as a subset of general youth aggression in applied settings (Boulton, Bucci, & Hawker, 1999). In general, it appears that intentionality may be a relevant and defining feature (Arora, 1996; Gumpel & Meadan, 2000). Physical bullying is a part of physical aggression, where all bullying is aggressive but not all aggression is bullying.

Direct physical bullying (Olweus, 1993) is a form of proactive aggression intended to achieve, demonstrate, or maintain social dominance (Griffin & Gross, 2004; Pellegrini, 1998; Pellegrini, Bartini, & Brooks, 1999) and may include hitting, kicking, or taking money or belongings (Wolke, Woods, Bloomfield, & Karstadt, 2000). By contrast, indirect, relational, or social aggression are discussed more often in professional literature (Arsenio & Lemerise, 2001; Bjorkqvist, Oesterman, & Kaukiainen, 1992; Underwood, 2003; Wolke, et al., 2000).

Relational aggression is more covert in that it intends no direct confrontation between aggressor and victim (Griffin & Gross, 2004). Aspects of such aggression are the

aggressor's desire to remain unidentified in order to avoid retribution (Bjorkqvist, et al., 1992; Lagerspertz, Bjorkqvist, & Peltonen, 1988), or acts that rely on social relationships in order to hurt the other person (Crick & Grotpeter, 1996). Underwood (2003) has expanded the use of the term relational aggression to social aggression, in order to include both verbal and nonverbal behaviors. Indeed, relational aggression is also called "indirect bullying" or "social aggression" and involves hostile manipulation of relationships and use of threats to control or dominate others. Indeed, relational aggression includes spreading rumors, threatening social ostracism, or making friends with another child as "punishment" for behavior deemed "unacceptable" (Pellegrini, 1998).

3.4.3.1.3. ***Bullying prevalence.*** In an international survey of adolescent health-related behaviors, students who reported being bullied at least once during the current term ranged from a low of 15% to 20% in some countries to a high of 70% in others (King, Wold, Tudor-Smith, & Harel, 1994; US Department of Education, 1999). A British study involving 23 schools found that direct verbal aggression was the most common form of bullying, occurring with similar frequency in both sexes (Rivers & Smith, 1994). Similarly, in a study of several middle schools in Rome, the most common types of bullying reported by boys were threats, physical harm, rejection, name-calling, teasing, rumors, rejection, and taking of personal belonging. Recently, findings in other countries showed the stability of bullying circumstances both internationally and cross-culturally (in Israel, Benbenishty and Astor, 2005; in the United States, Berthold and Hoover, 2000; in Greece, Kalliotis, 2000; in Italy, Menesini et al., 1997; in Australia, Rigby and Slee, 1991; and in the UK, Whitney and Smith, 1993), with emphasis not being placed solely on bullying behavior but on the more general phenomenon of school-based violence (Goldstein & Conoley, 1997).

Additionally, there is growing evidence of the stability of the occurrence across certain school characteristics (e.g., rural vs. suburban vs. urban schools) and school and class size (Sharp & Smith, 1994; Whitney & Smith, 1993). Moreover, children who bully others are more likely to suffer the negative consequences of their actions. They often feel lonely and lack close friendships (Mash & Wolfe, 2007), and they are also at risk of being victims of antisocial and violent behavior (Beran, 2005; Rigby, 2003); thus bullying may represent a first step toward a life of criminal activity (Aluede, Adeleke, Omoike, & Afen-Akpaida, 2008). Bullying is also associated with other problem behaviors, including smoking and under-age drinking (Nansel, et al., 2001).

3.4.3.2. *School location.* The National Center for Education Statistics in the US indicates that violence is more prevalent in large schools than smaller ones. Overall, 89% of large schools surveyed admitted to one or more criminal incidents in a year whereas only 38% of smaller schools did. School size is an essential factor for determining rates of violence in relation to a given student population. For instance, exposure to violent acts on the school campus is greater, thereby leading to a larger number of incidents (Furlong & Morrison, 2000). In addition, larger schools may seem impersonal, students may feel powerless to change or become involved in their management, and may feel alienated from other students and teachers (Goldstein, Apter, & Harootunian, 1984). With regard to school settings, school violence has been noted as an urban problem for more than a decade. However, there is inconsistent evidence to support this assumption. Previous US studies showed that school violence was higher in city schools than in suburban and rural schools (Elam & Rose, 1994). Nevertheless, Dwyer et al. (2000) claimed that school violence is not restricted only to city areas; it could also happen in rural and suburban settings. Additionally, the National Center for Educational Statistics in the US found no statistically significant differences in school violence between city and

rural areas. Similarly, a study in 2000 showed that there was no significant difference in school violence between city, suburban, and nonmetropolitan settings (M. Furlong & Morrison, 2000). Thus, it is important to note that the potential for violence is present in all schools regardless of location, although the evidence is not clearly shown.

3.4.3.3. *School environments.* The physical condition of school buildings can influence students' motivation, attitude, and behavior (Dwyer, et al., 2000). The general literature on violence has shown that violence may increase if the environmental conditions are not optimal, particularly in violent psychiatric wards (Kumar, 2001). This finding could have implications for school violence. Buildings that have uncomfortable temperatures, are polluted, have a large amount of graffiti, and are in need of repairs have a higher incidence of fighting and other forms of violence (Dwyer, et al., 2000). Schools located in neighborhoods with low incomes and high crime rates, for example, generally have significantly higher levels of school-associated violence (Laub & Lauritsen, 1998).

3.4.3.4. *Time and locations.* School violence incidents may occur at any time during the school day and at all locations within the school buildings and grounds. D. Smith (1990) reported that in US schools, most violence occurs in classroom and hallways. Similarly, a previous study found that high risk areas in schools were hallways (31%), buses (29%), bathrooms (27%), at extracurricular events and activities (17%), and gym areas (13%) (Pietrzak, Petersen, & Speaker, 1998). Additionally, violence in the classroom occurred only when the teacher was absent. Violent events occurred mainly in public areas during transition times where there was little or no adult supervision. The parking area after school was the most frequent location of violent events for older students while for younger students it most often occurred during transitions in the lunchroom and hallways. The public areas accounted for about one-third of all school

space (Astor, Meyer, & Behre, 1999). The most dangerous school locations were hallways during transitions (40%), with physical education locations, playgrounds, auditoriums, and areas surrounding the school accounting for the remaining dangerous areas (Astor, et al., 1999).

3.4.3.5. *School climate.* A school's climate is a complex matrix of student and adult attitudes, beliefs, and feelings about the school; interpersonal relationships within the school; values and norms, particularly in relation to resolving interpersonal conflict; and codes of behavior (Cook, Murphy, & Hunt, 2000). School climate, with classroom climate, has a profound impact on the nature and extent of school-associated violence (Barrios et al., 2001; McEvoy & Welker, 2000; Sprott, 2004). School climate can also affect the degree to which students are emotionally attached to their school (an empirically verified protective factor) and levels of commitment to violence prevention and peace promotion efforts (Gottfredson, 2001). Connectedness, and respectful and empathic relationships between students and teachers and with the school itself are more likely to decrease levels of school violence and its precursors. Additionally, student connectedness and even protectiveness of the school can be fostered through equal access to the school's resources (Haynes, 1996).

3.4.3.6. *Substance abuse*. The relationship between substance abuse and school and youth violence has been well documented (Furlong et al., 1997). Self-report findings of drug and alcohol use, and perceptions of frequency of use at school, were both strongly related to the amount of school violence (Furlong et al., 1997). Being an aggressor or a victim of school violence also was highly correlated with substance abuse. Youths who reported being under the influence of drugs at least seven times within a year while attending school were 10 times more likely than other students to bring weapons to school (Furlong et al., 1997). Empirical studies have consistently documented the co-occurrence

of youth violence and the use of alcohol and illicit substance use among adolescents (Dawkins, 1997; Elliott, 1994; Swahn & Donovan, 2004).

3.4.3.7. *Weapons possession.* The National Longitudinal Study of Adolescent Health reported that 12.4% of adolescents mentioned carrying a weapon somewhere in the past 30 days (Resnick et al., 1997). The findings were consistent with the Youth Risk Behavior Survey showing 18.4% of students carrying weapons somewhere, not just on school property (Kann et al., 1998). In addition, 8.2% of students in the urban sample mentioned they had carried a gun during the preceding month, with 4.0% at school and outside, 3.2% outside of school only, and 1.6% at school only (Cornell & Loper, 1998b). Other studies using the 'last 30 days' time period reported school weapon possession rates of between 7% and 15% (Cornell & Loper, 1998a; Johnston, O'Malley, & Bachman, 1996; Kaufman et al., 1998). Furthermore, youths who reported owning guns are, as a group, disproportionately involved in juvenile crimes and in assaultive, aggressive behaviors at school (Callahan, Rivara, & Farrow, 1993). Approximately half of students who take a gun to school report it makes them feel safer (Kingery, Pruitt, & Heuberger, 1996).

3.4.3.8. *Retaliation.* Anger drives the individual to action, creates a sense of power or control, and creates a desire for revenge or retribution; all of which lead individuals to view crime in a more favorable light (Agnew 1992; Averill, 1982; Gottfredson & Hirschi, 1990; Tedeschi & Felson, 1994; Tedeschi & Nesler, 1993). Intense anger is a potent force that leads perceived moral righteousness to be exerted excessively or to be redirected, but uncertainty is no less prominent in this regard. The retaliatory process is immersed in uncertainty. Aggrieved persons may not be able to locate the person who wronged them, or they may have suspicion of a violator's involvement but no proof.

Uncertainty can trigger retaliatory reactions that are more satisfying than optimizing (Simon, 1979).

There are similarities and differences between feelings of revenge and anger. On one hand, the similarities consist of the perception of a harming event, the attribution of responsibility to another person, and the perception of a lack of justification of the other person's behavior. On the other hand, feelings of revenge differ from anger in one essential aspect, in that anger may motivate not only aggressive reactions but also nonaggressive reactions (cf. Averill, 1983). Feelings of revenge, in contrast, include the aggressive retaliation motive by definition. Revenge activity can produce significant personal risks via subsequent retaliation. Thus, an offended individual who responds in a vengeful manner hopes simultaneously to punish the offender(s) while protecting him or herself from future attacks. In short, revenge activities occur in a relational context that requires them to be goal-driven. The goal-based approach to revenge is useful because it illuminates the underlying mechanisms that promote demonstrably effective and efficient, although destructive, behavior. It is noted that there are several emotions associated with revenge activity. For example, studies have shown that 'successful revenge' can result in 'glory' and 'joy about the spoils that revenge may have yielded' (Frijida, 1994, p. 275). This claim is supported in a study of autobiographical narratives where offended individuals reported feeling better after making the offenders feel guilty (Baumeister, Stillwell, & Heatherton, 1995). No emotion is more relevant to the retaliatory decision-making process than anger (Exum, 2002). Anger drives retaliatory decision making in one of two ways. Either it encourages the aggrieved party to strike excessively relative to the affront, or it causes him/her to lash out reflexively at available but putatively innocent victims. The first action produces an error of scale; the second produces an error of target. Occasionally, moralistic anger may be so intense that it causes the strike to be redirected onto someone other than

the person who committed the wrong. Lashing out at someone who did not violate the victim is emblematic of the aggrieved person in a state of extreme rage and comes about as close as victims can get to senseless aggression (see also Exum, 2002). The victim of the strike is innocent of the instigating affront and is attacked simply because of proximity or convenience. There are two variations of redirection, targeted and random, which can each produce violent acts of vengeance. This gives rise to the perception by some victimized youth that retaliatory violence is justified. A study of school fighting found that 84% of youths justified their violent interactions arguing that they were retaliating against harm to themselves, reacting to others' offensive or insulting behavior, acting in self-defense, or helping a friend who had been attacked (Lockwood, 1997). J. Furlong, Barton, Miles, Whiting and Whitty (2000) pointed out that this kind of response "can lead to a chronic perpetration–retribution cycle that has no easy or clear exit" (p. 83).

3.5.   Violence Consequences

Youth violence deeply harms people who are involved even if they are not necessarily related to the violence, including offenders, victims, families, friends, and communities. The impact of violence includes not only death, illness and disability, but is also seen in terms of psychological problems. Perpetrators of violence have been described as showing high levels of anger, beliefs supportive of violence, and impulsivity (Bosworth, Espelage, & Simon, 1999; Olweus, 1994). Victims of violence have been shown to suffer negative consequences both socially and academically (e.g., Beale, 2001; Brockenbrough, Cornell, & Loper, 2002; Gilmartin, 1987). Victimized youth may exhibit a number of psychosocial adjustment difficulties including depression (Card, Stucky, Sawalani, & Little, 2008; Crick & Bigbee, 1998; Haynie et al., 2001) that have a negative impact on their attendance and ability to focus on academic tasks (Campbell, 2005; Glew, Fan,

Katon, Rivara, & Kernic, 2005; Schwartz, Hopmeyer-Gorman, Nakamoto, & Tobin, 2005; P. K. Smith, Shu, & Madsen, 2004).

3.5.1. Depression.

Exposure to violence has been shown to correlate with the internalizing of problems, resulting in conditions such as such as anxiety and depressive symptoms (Cooley, Boyd, Frantz, & Walsh, 2001; Lynch, 2003; J. D. Osofsky, 1999). Depressed mood, determined by withdrawal from interaction and feelings of hopelessness toward the future, is often accompanied by outbursts of anger and aggression (Menaghan, 1999). Depression includes MDD (Major Depressive Disorder), dysthymia, and bipolar disorder. MDD is the most common depressive disorder in adolescents and is defined as when a person presents continuously for two weeks or more with depressed mood or a lack of pleasure in usual activities, accompanied by five or more additional symptoms (American Psychiatric Association (APA), 2000). Symptoms include changes in appetite, sleep or weight, fatigue, decreased libido, difficulty concentrating, and feelings of worthlessness, and in moderate to severe cases of MDD reported recurrent thoughts of death. According to the estimate of Global Burden of Disease Study, depression will account for 15% of the disease burden in the world by 2020 (Murray & Lopez, 1997). The prevalence for MDD in adolescents ranges from 0.4% to 8.3% and the lifetime prevalence is approximately 10% to 28% (Birmaher et al., 1996; Lewinsohn, Rohde, & Seely, 1998). Girls are twice as likely as boys to have MDD. Previous studies pointed out the role of psychopathology, particularly of depression, in relation to antisocial involvement (e.g, Ruchkin, Sukhodolsky, Vermeiren, Koposov, & Schwab-Stone, 2006). Delinquent youths frequently report high levels of trauma and internalizing psychopathology (e.g., Ruchkin et al., 2006; Steiner, Garcia, & Matthews, 1997).

Stressful life events in relation to experiences of violence are linked to the development of psychopathology. While the stress response is essential for maintenance of homeostasis and survival, chronic stress and maladaptive responses to stress insults lead to depression or other affective disorders (Bale, 2006). Depression may increase risk of premature death (Carney et al., 2003; Dickens et al., 2005), sickness absence (Druss, Rosenheck, & Sledge, 2000), and impaired work capacity (Kessler, Greenberg & Mickelson, 2001).

Depression has been connected with reduced activity of the monoamine neurotransmitters dopamine and serotonin (5-hydroxytryptamine) (Malison et al., 1998; Owens & Nemeroff, 1998; Sprex-Varoquaux et al., 2001). The research findings suggest that for some youths the relationship between internalizing psychopathology and antisocial behavior may occur because prior trauma predisposes to both outcomes. The depressive symptoms often vary in offenders, victims, and witnesses, depending on the level of violence they have been exposed to.

3.5.1.1. *Offenders.* Several studies have found depression associated with higher levels of violent and serious criminal behavior (Aronen & Soininen, 2000; Beyers & Loeber, 2003), and others have examined the effects of offending on depression (Beyers & Loeber, 2003; Hagan & Foster, 2003; Moffitt, Caspi, Rutter, & Silva, 2001; Overbeek, Vollebergh, Meeus, Engels, & Luipers, 2001; Rowe, Maughan, & Eley, 2006; Siennick, 2007). These studies generally used a cumulative continuity argument to explain the link between offending and depression (Sampson & Laub, 1993). It is possible that the negative consequences of offending (i.e., loss of social relationships, school expulsion) may limit offenders' opportunities to engage in prosocial activities and hence increase psychological distress within the individual. Subsequently, limited prosocial opportunities

and heightened psychological distress may then motivate individuals to continue offending.

The consequences of adolescent depression that may increase the likelihood of delinquency include weakened internal controls, weakened social controls, peer rejection, and substance use. Research has shown that depressed individuals scored higher on scales of impulsivity and low internal control (Kaslow, Rehm, Pollack, & Siegal, 1988; Semple, Zians, Strathdee, & Patterson, 2007). In addition, higher levels of depression were associated with a preference for simple tasks, greater restlessness, trouble concentrating, and a failure to consider and plan for the future (Corruble, Benyamina, Bayle, Falissard, & Hard, 2003; d'Acremont & van der Linden, 2007; Swann, Steinberg, Lijffijt, & Moeller, 2007). The studies point out that these characteristics have been linked to greater involvement in criminal behavior among various populations (Pratt & Dooley, 2000; Wright, Caspi, Moffitt, & Silva, 1999).

3.5.1.2. *Victims.* Victimization refers to intentional acts initiated by another person to cause one harm (e.g., being chased, threatened, beaten up, robbed, mugged, raped, shot, stabbed, or killed). Victimization typically falls into one of two types, overt or relational. Overt or direct victimization refers to being the target of observable aggressive actions by peers. This includes physical aggression such as hitting, pushing, slapping, and verbal aggression. Relational or indirect victimization refers to being the target of aggressive actions designed to damage relationships and social status, which consist of social exclusion, rumor spreading, and withholding friendship. Relational victimization becomes particularly prominent in early adolescence (middle school) because schools impose harsh sanctions for overt aggression, thereby increasing covert and indirect forms (De Los Reyes & Prinstein, 2004).

Relational victimization is more strongly related to emotional distress than physical victimization (Baldry, 2003) and has been found to be uniquely predictive of current (Casey-Cannon, Hayward, & Gowen, 2001; Crick & Bigbee, 1998) and future (Crick & Grotpeter, 1996; Espelage, Mebane, & Swearer, 2004) social and psychological maladjustment and depression in adulthood (Crick & Bigbee, 1998; Olweus, 1993b). The frequent outcome of peer victimization is depression (Card et al., 2008; Fekkes, Pijpers, & Verloove-Vanhorick, 2004; Graham, Bellmore, & Mize, 2006; Hawker & Boulton, 2000; Olweus, 1993; Storch, Nock, Masia-Walker, & Barlas, 2003). Depression, anxiety, loneliness, and decreased self-esteem are some of the common psychological outcomes of being victimized (Dake, Price, Telljohann, & Funk, 2003), which often persist into adulthood (Smokowski & Kopasz, 2005).

3.5.1.3. *Witnesses.* There is less agreement regarding the definition of "witnessed" violence. Some studies have referred specifically to eye-witnessing an event that involves death, injury, or a threat to the physical integrity of another person (Shakoor & Chalmers, 1991); others have included hearing violent events take place (e.g., gunshots, screams) (Campbell & Schwarz, 1996); and still others have included the witnessing of lesser crimes such as property damage (Lai, 1999).

Witnessing violence has been associated with a variety of psychiatric and developmental difficulties. Violence exposure at school, both witnessing and victimization, was independently associated with internalizing problems. Both witnessing violence and victimization at home and school independently predicted anxiety; witnessing violence at school and victimization at home were related to depression; and witnessing violence and victimization at home were associated with aggression. Nevertheless, witnessing violence in the community only predicted higher levels of delinquency. It is suggested that

witnessing violence is equivalent to victimization in its impact on psychosocial and developmental outcomes (Kitzmann, Gaylord, Holt, & Kenny, 2003).

3.5.2. Costs of Violence.

Youth violence is a global problem that is costly to societies around the world (Herrenkohl et al., 2000; Rutherford, Zwi, Grove, & Butchart, 2007; WHO, 2002). The costs of violence stem from harm caused to victims (e.g., medical expenses, absence from school or work, psychological harm) as well as policing and criminal justice responses and costs of perceived lack of safety in the community (WHO, 2002, 2004).

In the US, approximately $5.7 to $18 billion is spent annually on medical care for victims of violence, and the estimated costs of mental afflictions and lost wages is $191 billion. It is important to note that school violence, as with any other type of violence, has economic costs. In 2008, Bagley and Pritchard conducted a study of 227 youths, aged 12 to 22 years old, who were removed from school and enrolled in special behavioral units. These programs cost more than $100 million or at least $45,472 for each youth. The figure includes costs such as police work, court appearances, property damage, and custody costs, but does not include some professional costs (e.g. social workers and educational psychologists), mental health and drug rehabilitation treatment, and costs of housing 'unemployable' youths (Bagley & Pritchard, 1998). The study suggested that tax payers could save a staggering $1.7 million for each high-risk juvenile diverted from a life of crime (Miller, Cohen, & Wiersema, 1996).

Summary

There are numerous theoretical explanations for the proliferation of aggression and violence among children and adolescents, and four theories with major assumptions involved in criminology and sociology of youth violence are mentioned. First, General

Strain Theory (GST) posits that strains are likely to elicit emotional reactions (anger, fear, depression, rage), which then trigger potential coping mechanisms as individuals seek to deal with the precipitating events and ensuing emotional feelings. When strains are seen as being high in magnitude, unjust, associated with low social control they build up some sort of incentive for criminal coping and are most likely to lead to crime. Second, social capital theory points out that social relations, ties, and trust are important correlates of crimes. Third, the masculinity concept assists in theorizing the relationship between masculinities and a variety of crimes and was also used in studies on specific crimes by boys and men who perpetrate more of the conventional crimes than women and girls do. Lastly, the Developmental Life Course (DLC) perspective offers a comprehensive approach to the study of crime because it considers the various influences that shape offending across different time periods and contexts.

The problem of school violence is multifaceted and can be understood to include violence perpetrators, victims, and witnesses of violence. Generally, individual risk factors for youth and school violence, such as the ones described above, do not exist independently of other risk factors. Violence is thought to be the result of complex interactions between individual traits and social (e.g., family, peers), situational (e.g., school, home), and neighborhood risk factors that can also can also strongly affect aggressive and violent behavior in school and shape probability traits that, in turn, can contribute to violent behavior. Exposure to aggression and violence are also related to a variety of school-related problems, including externalizing (poor academic achievement, problem behavior, and concerns with attendance and attachment to school) (Juvonen, Nishina, & Graham, 2000) and internalizing problems (anger and depression). Furthermore, violence involving young people adds greatly to the costs of health and

welfare services, reduces productivity, decreases the value of property, disrupts a range of

essential services and generally undermines the fabric of society.

Chapter 4

Public Policy and Interventions

Violence among young people and violence based in schools can be prevented. Hence, the World Health Assembly (1996) resolution WHA49.25 on the prevention of violence and the World Health Assembly (2003) resolution WHA56.24 on implementing the recommendations of the *World report on violence and health* called on member states to give priority to preventing violence among young people. These resolutions emphasized the need for health and school constituencies to take the lead in coordinating a multisectoral response to prevent violence. Schools are an optimal setting for prevention and interventions because children spend a great deal of time at school with teachers and peers, and large groups of at-risk children can be easily targeted (Beland, 1996; Blechman, 1996). Effective strategies that can be provided for universal school implementation include behavioral monitoring and reinforcement, classroom management, and skill training. Indeed, school-based programs are a necessary part of the solution to the problem of youth aggression (Farrell, Meyer, Kung, & Sullivan, 2001). Schools are the most salient context for prevention and early intervention efforts because they provide greater access to larger numbers of youth than any other setting. Although these targeted efforts could be implemented in various settings (e.g., home, clinic, hospital, or juvenile justice system), they are most commonly found within the school context (Sugai, Sprague, Horner, & Walker, 2000). Numerous school-based programs have been developed to reduce students' antisocial and delinquent behaviors by helping students gain prosocial skills. A recent meta-analysis assessing 83 school-based studies revealed that comprehensive programs significantly reduced students' antisocial behavior, hostile attribution bias, hostile interpersonal negotiation strategies, and aggressive behaviors (Derzon, Springer, Sale, & Brounstein, 2005). Early intervention in the home, school, and community is the single

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best way of diverting children from the path of antisocial behavior (Walker, Ramsey, & Gresham, 2004). Effective school-based prevention programs can train faculty to identify and respond to student needs sooner.

The public health approach brings a strong emphasis and commitment to identifying policies and programs aimed at preventing violent behavior, injuries, and deaths. Three levels of prevention have been identified: primary prevention (prevention before adverse events happen); secondary prevention (treatment), and tertiary prevention (rehabilitation and reintegration). To date, both industrialized and developing countries have focused on the development of secondary and tertiary responses to violence. Understandably, the priority is often towards the immediate consequences of violence, providing support to victims and punishing the offenders. While important and in need of strengthening, such responses should be accompanied by a greater investment in primary prevention and early intervention for those who might be considered to be at risk.

In this chapter, WHO policies addressing violence in youth and youth violence prevention are reviewed, together with school violence policies and interventions. School policies are mentioned to understand effective planning, selection, and implementation strategies of school-based violence prevention. The process of school policy involves critical steps of selecting, adopting, and implementing school-based violence prevention strategies. School-based intervention programs are a necessary part of the solution to the problem of youth aggression. One well-recognized intervention for aggression draws on a cognitive–behavioral approach and relaxation. Another approach, referred to as Eastern treatment, uses meditation in anger management associated with integrating Buddhist techniques into treatment programs, thereby reducing physiological arousal associated with anger by relaxation. Finally, Aggression Replacement Therapy (ART) is believed to help

youth control their aggressive behaviors and replace these with effective reasoning and decision making skills.

4.1.   Policies on Youth Violence

It is widely accepted that preventing youth violence requires multisectoral collaboration and coherent strategies within a society. However, in practice there are few examples of multisectoral approaches to violence prevention. Criminal justice and health ministries do not often have adequate mechanisms for sharing information and using information to shape policies. In addition, appropriate legislation and tools to enforce such legislation are also often lacking, particular in low- and middle-income countries which lack the basic infrastructure needed to support general prevention efforts, as well as more targeted intervention programs. Recently, the World Health Organization established TEACH-VIP (Training, Education, Advancing Collaboration in Health on Violence and Injury Prevention) to assist government agencies with the task of developing information systems for recording violent and other injuries.

4.1.1.   World Health Organization's TEACH-VIP

The TEACH-VIP is a modular system developing by WHO in response to the need to control violence and prevent injury; there are six objectives designed to enable students, government officials and professionals/para professionals in the health and social divisions to (1) classify the fundamentals of injury prevention, control, and safety promotion, (2) distinguish basic methods in response to injury problems in the community, (3) identify problems from various sources, (4) create, implement, and assess injury prevention and safety promotion interventions, (5) classify and analyze effective injury prevention and controls, including products, programs and policies, and (6) determine pertinent sources of information (scientific literature, guidelines and recommendations,

summaries of research, websites) and critically appraise them (see Meddings, Knox, Maddaleno, Conch-Eastman, & Hoffman, 2005).

4.1.1.1. *Develop plans.* The first component of TEACH-VIP aims to develop and implement national policies and plans for preventing violence among young people. These plans should involve multiple sectors, including justice, education, social welfare, transport, occupation, environment and local planning, and promote collaboration between government and non-government agencies and the public. An initial task is to assess the prevalence, nature, and causes of violence among young people and consider existing relevant policies, laws, and regulations and identified stakeholders and available resources (World Health Organization-Kobe Centre, 2007).

4.1.1.2. *Take action: implement evidence-based primary prevention.* When there is sufficient evidence the primary prevention of violence among young people should be enforced immediately. Key approaches are recommended to address the root causes of violence through interventions that target parenting, life skills, and access to alcohol and weapons, and aim to modifying settings in which violence occurs (such as preventing school bullying and making drinking environments safer).

4.1.1.3. *Strengthen responses for victims.* In addition to addressing systemic responses for primary prevention, high quality services should be provided for victims of violence. Health systems need to be strengthened to provide high quality emergency medical services and to support and rehabilitate victims to address both the physical and mental effects of violence, with a holistic approach to improve coordination between the different sectors.

4.1.1.4. *Build capacity and exchange best practices.* An essential part of an adequate health system response is to ensure a supply of trained and experienced personnel who are knowledgeable about prevention and treatment. Young people should be

involved because integrating the prevention of violence into educational curricula may help to change attitudes towards and norms regarding violence, sensitize young people to the unacceptability of violence, and promote gender and social equality.

    4.1.1.5. *Improve the collection of data on the causes*, *effects, and costs of violence.* High quality data on mortality, morbidity, and exposure to violence are essential to the development of effective policies for preventing violence among young people. These data appear to be incomplete in many countries, and it is recommended that the *International Classification of External Causes of Injury* (National Injury Surveillance Unit, 2004), the injury surveillance guidelines (World Health Organization (WHO) Europe, 2008), and the guidelines on community surveys on injuries and violence (World Health Organization, 2004) are used to allow comparisons to be made between countries.

    4.1.1.6. *Define priorities for and support research.* Much of the previous research on violence has been undertaken in Western countries. In low- and middle-income countries, case-control and cohort studies are urgently required in order to enhance the understanding of culturally specific risk and protective factors. The implementation of intervention programs represents an opportunity to undertake such evaluative research. Other key research issues that need to be strengthened are economic analysis, including the costs and benefits of interventions, and knowledge of non-fatal outcomes and the intergenerational effects of violence.

    4.1.1.7 *Raise awareness and target investment for preventing violence among young people.* Advocates for preventing violence among young people are needed, and it is recommended that young people are required to be more engaged in the task. Potential targets for advocacy are politicians, policymakers, funding agencies, health and other professionals, the mass media and young people themselves. International and national non-governmental organizations, the health sector and other sectors need to

advocate for broad government policy leading to safer environments in social, community, and family settings.

4.1.1.8. *Address inequality in violence among young people.* The determinants of violence among young people include underlying structural, social, and economic factors such as inequality, poverty, and unemployment. As such, equity needs to be incorporated into all levels of government policy, as promoted by the WHO Commission on Social Determinants of Health (World Health Organization (WHO) Europe, 2008). The health sector has a key role to play in advocating for this across other government departments and to highlight violence among young people as a consequence of social policies.

Summary

Training, Education, and Advancing Collaboration in Health on Violence and Injury Prevention (TEACH-VIP) is a modular violence and injury prevention and control curriculum developed by the WHO in response to the need to build capacities for preventing injuries and violence. The curriculum includes modules and lesson topics that directly address youth violence including youth as victims and victimizers, exposure to violence in youth, and preventing youth violence. The TEACH-VIP module is not specific to school-related problems, although it is relevant to youth who are in school. Therefore, health promotion interventions in schools are some of the key strategies to enhance youth knowledge, attitudes, and skills concerning healthy lifestyles (St Leger, 1999). Specific interventions, combined with school policy, school infrastructure and links with health services and local community, are central ingredients of comprehensive school health promotion (Allensworth & Kolbe, 1987; World Health Organization, 1996). An environment rich in prosocial activities, norms favorable to conformity, and opportunities to pursue relationships can help young people attain higher levels of social adjustment and

fewer problem behaviors (Carnegie Council on Adolescent Development, 1995; Roeser, Eccles, & Sameroff, 2000).

4.1.2. Policies on School Violence

It has been suggested that effective schools should have: (a) clearly defined goals in relation to the school mission and philosophy; (b) close monitoring and feedback in regard to progress toward these goals; (c) high expectations for student achievement and obvious boundaries for acceptable behavior; (d) high morale among staff and students; and (e) successful and meaningful involvement of parents and the community (Braaten, 1997; Good & Weinstein, 1986). These parameters provide a useful framework for examining school factors as they relate to violence. The process of selecting, adopting, and implementing school-based violence prevention strategies involves five critical steps (Greene, 2005).

4.1.2.1. *Needs and assets assessment.* Efforts to prevent and

reduce violence must be targeted to the specific needs and assets of schools (Mihalic, Fagan, Irwin, Ballard, & Elliott, 2004). Several organizational and practice features have been shown to have a positive effect on the quality of program implementation, such as involvement by teachers and school administrators in initiating and sustaining program support, flexibility and problem-solving ability, administrative and staff stability, and philosophical compatibility and political support (Gottfredson & Gottfredson, 2002; Hess & Leal, 2001; Mihalic et al., 2004). Additional organizational features that affect implementation quality include adequate fiscal resources, availability of staff time to devote to the program, and experience with and willingness to integrate new strategies with ongoing activities and the school's curricula (Elliott & Mihalic, 2004; Fagan & Mihalic, 2003; Gottfredson & Gottfredson, 2002; Gottfredson et al., 2000; Mihalic et al., 2004).

4.1.2.2. *Planning group and initial planning activities.* The establishment of a collaborative planning group to oversee all aspects of violence reduction and safety promotion is essential for successful program implementation (Stephens, 1998). The success of the planning group is based on several factors (Elliott & Mihalic, 2004; Mihalic et al., 2004; Violence Institute of New Jersey, 2001). First, a leader who can effectively challenge and inspire other members of the group is necessary to sustain the group when external pressures and competing priorities emerge. Second, a competent staff member is needed who can devote full-time efforts to ensure that plans are carried forward in the spirit and manner in which they are recommended. Last, the planning group must have initial and ongoing support from the school administration and school board. To maximize the planning group's effectiveness, its membership should include participants from a diverse range of internal and external constituencies. There are three key aspects of the rationale for such diversity: (a) the agreement among these constituencies is maximized; (b) the harnessing of community resources and knowledge is optimized, addressing the full ecological array of risk factors and drawing on the strengths and assets from the entire community; and (c) communication and the flow of information is maximized to ensure coordination of efforts (Barrios et al., 2001; Elliott, Hamburg, & Williams, 1998; Everhart & Wandersman, 2000; Hantman & Crosse, 2000; Hunter, Elias, & Norris, 2001).

4.1.2.3. *Strategy adoption.* Programs for adoption should be compatible with a school's goals and objectives and the nature and severity of behaviors and attitudes to be addressed by the intervention (Hamilton Fish Institute, 2001; Sprague et al., 2001). Additional considerations should include research evidence that the program is effective, cultural and developmental appropriateness, ease of incorporation into the school's schedule and operational structure, cost, staff capacity, clarity and extensiveness

of program training, program complexity, philosophical compatibility, and key stakeholder support (Dane & Schneider, 1998; Everhart & Wandersman, 2000; Gottfredson, 2001; Gottfredson et al., 2000; Hamilton Fish Institute, 2001; Hantman & Crosse, 2000). Each of these factors can generate significant obstacles to successful implementation and should be considered carefully.

4.1.2.4. *Strategy implementation.* The first task in ensuring successful implementation is the establishment of procedures to document what, and how much of the "what", is actually implemented. These data are important for several reasons (Dane & Schneider, 1998; Domitrovich & Greenberg, 2000; Elias, Brune-Butler, Blum, & Schuyler, 2000; Gottfredson, 2001; Gottfredson et al., 2000). First, program effectiveness can be seriously compromised if it is implemented in a manner that deviates from the program requirements (Wilson, Lipsey, & Derzon, 2003). Second, if a program fails to reduce levels of violence in a school, one needs to know whether the failure was because of the ineffectiveness of the program or improper program implementation (Dobson & Cook, 1980). Third, it is important to establish whether an effective program can be replicated with fidelity under routine circumstances. If the barriers to replicating a program are insurmountable, then the program model needs to be adjusted.

Ensuring that a program model is implemented with fidelity is a multidimensional effort (Dane & Schneider, 1998; Domitrovich & Greenberg, 2000; Gottfredson & Gottfredson, 2002). The dimensions include content (whether the prescribed program elements are delivered), quality of implementation (whether the program elements are provided in the prescribed manner and quality), dosage or exposure (whether the targeted subjects receive each of the program elements to the degree prescribed), and program differentiation (whether the implemented program is sufficiently different from what was previously implemented or implemented in a comparison school) (Greene, 2005).

4.1.2.5. *Evaluation.* The goal in evaluating school-based strategies is pragmatic rather than scientific. It should provide sufficient information to assess what strategies are actually implemented, whether the implemented strategies are properly received by all school stakeholders and whether the strategies are associated with reductions in school violence and with improvements in the overall school climate. Manuals to assist schools in undertaking such evaluations should be provided (Maxfield, 2001; Milstein & Wetterhall, 1999), and schools should utilize the expertise available at local colleges and universities.

4.2. Intervention Programs

The goal of primary prevention intervention is to reduce risk behaviors that are associated with subsequent violence. Therefore, outcome indicators focus primarily on the reduction of the behavior that places the person at risk. In contrast, the focus of secondary and tertiary interventions is to reduce violent behavior in a population identified as at risk of, or already engaging in, violence. Thus, the goal of these levels of interventions, particularly tertiary interventions, is more likely to lead to a reduction in violence. For example, if anger is identified as an important risk factor for school violence (Fryxell & Smith, 2000), then studies in this area should routinely examine externalizing anger as one of the outcomes for both primary and secondary interventions.

Prevention and intervention efforts designed to ameliorate violence have identified a number of individual, family, school, peer, and community risk factors that contribute to delinquency and future violence (Andrews & Trawick-Smith, 1996; Consortium on the School-Based Promotion of Social Competence, 1994). A number of individual-level risk factors can be targeted by violence prevention programs. Several of these risk factors are highly confounded with rates of deviance; however, the most salient behavioral predictor

of later violence and delinquency is early aggression (Gottfredson, 2001; Hawkins et al., 1998; Lipsey & Derzon, 1998; O'Donnell, Hawkins, & Abbott, 1995; USDHHS, 2001; Viemerö, 1996). Cross-sectional research has demonstrated that childhood aggression can predict official delinquency status (Vazsonyi, Vesterdal, Flannery, & Belliston, 1999). Longitudinal investigations have also concluded that aggressive behavior remains relatively stable over time and can be considered to be part of a general pattern of antisocial behavior that is associated with later self-reported violence, arrests, and convictions for violent offences (Lipsey & Derzon, 1998; Loeber, Farrington, Stouthamer-Loeber, Moffitt, & Caspi, 1998). Aggression in the school context is particularly problematic during grade school as it violates both peer group and social norms (Bierman & Montminy, 1993; Coie & Dodge, 1998).

Recent violence prevention efforts have focused on large scale, universal, programmatic efforts (Powell et al., 1996). Although prevention efforts have occurred in multiple contexts, school-based interventions have several advantages (Catalano, Arthur, Hawkins, Berglund, & Olsen, 1998; Gottfredson, 2001; USDHHS, 2001). For example, schools are an optimal setting for prevention efforts; children spend a great deal of time at school with teachers and peers, and large groups of at-risk children can be targeted relatively easily (Beland, 1996; Blechman, 1996). Effective strategies include behavioral monitoring and reinforcement, classroom behavior management, and skills training. Such approaches recognize that behavior change takes time and that the whole school atmosphere needs to reinforce change (e.g., Farrell et al., 2001; Gottfredson, 2001; USDHHS, 2001).

There has been particular interest in the development and evaluation of a range of different intervention programs designed to prevent aggressive and violent behavior in school age children and young adults. These suggest that relaxation, cognitive, and social

skills treatments, alone or in combination, are all moderately effective when offered to individuals who experience anger regulation problems and that these findings apply across cultures and both genders (Edmondson & Conger, 1996). These interventions are reviewed below. Some interventions integrate two or more intervention components and target multiple elements of anger. For example, cognitive–relaxation interventions focus on cognitive, physiological, and emotional components of anger using both cognitive and relaxation approaches. Other interventions combine cognitive and behavioral interventions, and still others integrate all three. Combined interventions have been applied with a range of clients including generally angry college students, angry community samples, angry drivers, angry police officers, incarcerated individuals, angry veterans suffering post-traumatic stress disorder, individuals characterized with Type A behavior, and parents of children with anger control difficulties. Meta-analyses have indicated that treatment programs with multiple foci and modules are more successful than those that are directed at only one aspect of the young person's problems (Dowden & Andrews, 2000).

4.2.1.   Relaxation Treatment

Relaxation interventions have their origins in reciprocal inhibition theory (Wolpe, 1973) and aim to reduce both the emotional and physiological components of anger. When relaxation intervention is applied to anger, it is predicted that arousing stimuli (anger-provoking stimuli) will be inhibited. Anger is understood largely in terms of physiological arousal and this is thought to interfere with inherently rational cognition and adaptive behavior. Thus, the goal of relaxation treatment is to reduce physiological arousal associated with anger, which in turn prevents intense unpleasant feelings and the motivation to behave aggressively. Theoretically, as clients learn to lower emotional and physiological arousal, they are in a calmer position from which to think clearly and access problem solving, conflict management, and other skills with which to address sources of

anger and frustration (Edmondson & Conger, 1996). Most of the interventions teach clients relaxation coping skills, provide training in applying these skills within sessions, and use homework to facilitate transfer into everyday living.

Relaxation interventions have been successfully delivered to several populations, including angry college students, individuals with elevated blood pressure, incarcerated individuals, and angry drivers (Deffenbacher, Oetting, & DiGiuseppe, 2002). Relaxation treatments adopt several methodologies, such as anxiety management training, relaxation coping skill programs and, of particular relevance to the current investigation, meditation.

4.2.1.1. *Meditation.* Although meditation in some form is practiced in most cultures, Buddhist traditions of mindfulness meditation are the primary source of mind–body approaches that have been incorporated into health care treatments. Both science and Buddhism examine human experience through observation, analysis, and empirical experience. Without a sense of creator or divine source, Buddhism is more accurately understood as a psychology or a philosophy rather than a religion (Bash, 2004; Bruce & Davies, 2005). Therefore, perhaps, the prominence of mind–body experience allows Buddhist meditation practices to be incorporated both as a spiritual and a secular practice into health care treatments.

Meditation is a self-directed method usually used to help quiet the mind and relax the body. Generally, the meditator focuses upon a thought, image, or sound, or other sensory experience. Meditation techniques may be divided into two broad categories: those with an emphasis on concentration (e.g. transcendental meditation) and those that focus on mindfulness (e.g. vipassana and mindfulness-based stress reduction) (Baer, Smith, & Allen, 2004; Brown & Ryan, 2003). Concentration-based approaches involve focusing

attention on a particular stimulus, such as a mantra, sound, object, or sensation. Although there are many types of meditation, they all have been shown to have similar effects (Chopra, 1991).

Meditation has been found to be particularly helpful in the reduction of anger (Dua & Swinden, 1992) and anxiety (Kabat-Zinn et al., 1992). The energy of anger can be tamed by calming the sympathetic–adrenal axis and reducing the fight–flight response. This is the well-known relaxation mechanism for reducing aggressive responses (Benson, 2000). The relaxation response is essentially an intentional moderation of the sympathetic–adrenal response through a biofeedback mechanism which consists of physiological and psychological components, relaxing the body and relaxing the mind.

Mindfulness. Mindfulness has its roots in Theravada Buddhism, where it is known as *sattipatana vipassana* (Gunaratana, 2002). Three major traditions of Buddhism are identified: Theravada (practiced in Sri Lanka, Thailand, Burma), Mahayana (Japanese Zen, Chinese Chan, and Indo-Tibetan), and Vajrayana (Tibetan Buddhism). The practice of Mindfulness Meditation (MM), rooted in Buddhist vipassana (translated as insight) meditation, encourages the cultivation of nonjudgmental, moment-to-moment awareness both during the formal meditation practice and in everyday life (Kabat-Zinn, 1990).The theoretical premise of the practice is the belief that cultivation of present moment, nonjudgmental awareness focuses the mind to notice better, understand, and integrate one's perceptions of self and environment. Such practice is said to bring forth insight into one's cognitions or mental formations (*samojana*) that may be positive or negative in nature while providing an avenue to observe, rather than react to, one's thoughts and emotions, ultimately providing peace of mind (Nhat Hanh, 2001). Inherent in the practice of nonjudgmental awareness is observing one's experience without trying to change it

(e.g., just noticing the tension of a muscle as opposed to trying to relax a tense muscle, or just noticing a thought as it arises as opposed to trying actively to change the thought).

There is a growing body of evidence to support the effectiveness of MM. For example, a vipassana course was positively associated with a decline in substance abuse among an incarcerated population (Simpson et al., 2007). Some studies have also associated meditation with reduced violence among prison populations and decreased recidivism on release (Dillbeck, Banus, Planzi, & Landrith, 1988; Marcus, 1996; Witoonchart & Bartlet, 2002).

      4.2.1.2. *Loving Kindness Meditation (LKM).* Buddhist traditions have emphasized the importance of cultivating connection and love toward others through techniques such as loving kindness meditation (LKM). LKM is used to increase feelings of warmth and caring for self and others (Salzberg, 1995), and is related to The Four Immeasurables (also referred to as the Divine Abodes, Boundless States, or Brahamaviharas). These qualities are called loving kindness (*metta*), compassion (*karuna*), joy (*mudita*), and equanimity (*upekkha*). Many practices involving the four immeasurables begin by cultivating these qualities toward the self, and then extend them to friends, neutral individuals, difficult people, and all sentient beings. This practice is designed to create changes in emotion, motivation, and behavior in order to promote positive feelings and kindness toward the self and others (Salzberg, 1995). It is based on the premise that human beings have a deep-seated need to feel connected, to be trusted and loved, and to trust and love in return (Baumeister & Leary, 1995). Feeling connected to others increases psychological and physical well-being (De Vries, Glasper, & Detillion, 2003; Lee & Robbins, 1998; Brown, Nesse, Vinokur, & Smith, 2003) and decreases the risk of depression and physical disorders (Hawkley, Masi, Berry, & Cacioppo, 2006). A sense of connectedness also increases empathetic responding (Cialdini, Brown, Lewis, Luce, &

Neuberg, 1997) and acts of trust and cooperation (Glaeser, Laibson, Scheinkman, & Soutter, 2000) in order to promote positive feelings and kindness toward the self and others (Salzberg, 1995). This tends to have mutually reinforcing effects as one may get trust and cooperation in return (Fehr & Rochenbach, 2003). Thus, the Buddhist LKM approach may be particularly well suited to preventing retaliatory responses that are evoked by anger. Additionally, LKM could minimize negative emotions such as depression, anxiety, and distress (Carson et al., 2005; Davidson et al., 2003). Unfortunately, there is no evidence showing that LKM can promote self-control in order to reducing aggression or violent behaviors. Nevertheless, LKM as a part of meditation may led to a feeling of deep relaxation (Baer, 2003) that could help to boost self-control thereafter (Tyler & Burns, 2008).

There is currently limited evidence supporting the use of mindfulness meditation for people with anger problems in colleges or schools. Most of the evidence for Buddhist meditation is related to its use as an adjunctive treatment for psychological symptoms associated with a range of other specific psychiatric and medical disorders (Kelly, 2008). However, this approach is particularly promising in countries such as Thailand, where people have meditated since primary school. It has not previously been implemented as a psychological treatment. According to limited evidence, mindfulness meditation has been selected as one intervention program for reducing anger expression in at-risk youth in this study.

4.2.2. Cognitive–Behavioral Treatment.

Cognitive–behavioral approaches assume that an individual's perceptions, expectations, and appraisal will determine whether anger is elicited in a particular situation, thereby preventing adaptive behavioral responses. The primary goal of

cognitive–behavioral treatment is to modify cognitions so that anger intensity remains at a level that does not interfere with adaptive behavior. Cognitive interventions target anger-engendering cognitive processes such as hostile appraisals and attributions, irrational beliefs, aggression-supporting expectations, ineffective problem solving, and inflammatory thinking. Alternative cognitions are developed and rehearsed within sessions, and homework exercises are designed to transfer skills to real-life events (Deffenbacher et al., 2002). These interventions are complemented with training in social skills that is designed to provide appropriate skills for handling anger in social situations. The rationale for social skills training for anger problems is derived from assumptions of social learning theory regarding aggression (Bandura, 1973). The social information processing model developed by Dodge (1980) postulated a five-step sequential model of cognitive processes: encoding of social cues, interpretation of cues, response search, response decision, and enactment of behavior. Disruption of any of these processes can lead to anger and aggressive behavior. An assumption underlying this approach is that anger-prone individuals have social skill deficits that result in their inability to resolve anger-provoking social situations in ways that do not involve aggression. The training focuses on the processes that facilitate the acquisition and performance of social skills, including the appropriate expression of angry behavior and problem solving (Conger, Neppl, Kim, & Scaramella, 2003).

A recent meta-analytic review of anger management training studies reported the usefulness of cognitive therapies for managing trait anger, and relaxation training for managing state anger (Del Vecchio & O'Leary, 2004). Recently, the therapeutic use of mindfulness has added a new dimension to cognitive–behavioral therapies (Baer, 2003; Germer, Siegel, & Fulton, 2005; Hayes, Follette, & Linehan, 2004; Singh et al., 2006).

4.2.2.1. Aggression Replacement Training (ART).

A method that has received substantial attention and has empirical support is the

Aggression Replacement Training (ART) program developed by Goldstein and co-workers (Goldstein & Glick, 1994a; Goldstein, Nensen, Daleflod, & Kalt, 2004). ART is a manual-based treatment specifically designed to decrease relapse in adolescent violent behavior. It consists of three parts: social competence training, moral education, and aggression control. The 'Skill Streaming' curriculum addresses skills in the area of beginning and advanced social skills, and includes dealing with feelings, alternatives to aggression, dealing with stress, and planning skills. The Anger Control Training component focuses on helping individuals respond more effectively to feelings of anger. The training sequence is designed to identify their anger triggers, reduce the intensity of the anger, and control anger. Moral Reasoning is another important aspect of this model which provides the development of age-appropriate moral–cognitive skills. Training activities in the Moral Reasoning component present students with specific problem situations, so students learn how to engage in a mature discussion of the right or wrong decisions depending on the situation.

Evaluations have indicated that young persons who receive ART show better self-control and are more resilient towards criticism than other adolescents (Goldstein & Glick, 1994a) and demonstrate improved knowledge of social skills (Coleman, Pfeiffer & Oakland, 1992). For example, a study in a residential facility for male youth (n=60) showed that acting-out and impulsiveness were reduced among youth who participated in the intervention compared with the controls, both as rated by observers on a weekly basis, and in pre- and posttest surveys (Goldstein & Glick, 1987). Additionally, Goldstein and Glick (1994a, 1994b) pointed out significant reductions in re-arrest rates (15% for participants, compared with 43% for controls) for youth released from a correctional facility, and for arrest rates of gang members (13% vs. 52%). In a short term shelter for runaway youth, the findings revealed a 14% decrease in the mean weekly number of

antisocial incidents for males after exposure to ART, and a 29% decrease for females (Nugent, Bruley, & Allen, 1999). In 2002, Barnoski reported preliminary findings from a study in Washington DC that suggested that ART reduces offense recidivism in general, but less so in felonies and not at all in violent felonies.

Overall, ART should be regarded as well supported, producing modest to strong effects in a range of institutions. It appears to be one of the better developed interventions for use with adolescents, and can be regarded as a promising approach to preventing aggressive and violent behavior that occurs in school settings.

Summary

In summary, interpersonal violence among young people is a growing concern across the world, especially in low- and middle-income countries. It can lead to premature death and injuries both in victims and perpetrators, and generate psychological problems (anxiety and depression) in family, friends, and communities. There is no single factor explaining why some individuals behave violently toward others or why violence is more prevalent in some schools than in others. Violence is the result of the complex interplay of individual, relationship, social, cultural, and environmental factors. Understanding how these factors are related to violence is one of the important steps in the public health approach to prevent violence.

There are three key approaches to violence prevention, including universal, selected and indicated interventions. Universal preventions aim to treat a group or the general population without regard to individual risk factors while selected intervention trials target high-risk youths and youths with delinquent behaviors. There is evidence that social development programs such as Aggression Replacement Training and Mindfulness Meditation can be effective in reducing antisocial and aggressive behavior among youth

and improving social skills. These programs appear to be the most effective programs for youth violence prevention because they focus on managing anger, modifying behavior, adopting a social perspective, moral development, building social skills, solving social problems, and resolving conflicts.

Most previous research on youth violence has demonstrated the predictive and risk factors related to school, parent, peers, and community in the development of delinquent behaviors for American, European, and Hispanic adolescents. Few studies have explored risk and protective factors in Asian youths, so whether these factors influence delinquency for Asian youths is unclear. Additionally, intervention programs related to cultural approaches in Asian adolescents are scarce.

In Thailand, a low-middle income country in South-East Asia, youth violence is a major public health issue. The prevalence of interpersonal violence among adolescents has increased during the last decade, and most young people who are arrested and injured are students from vocational institutes, particularly technical colleges. Unfortunately, there is scant scientific information using either qualitative or quantitative studies to explore risk factors and patterns of youth violence, and this is essential to develop rational and effective programs to resolve adolescent problems. Therefore, this study aimed to search for risk factors related to youth violence based in technical colleges, including individuals, peers, family, and community. The qualitative study was undertaken to understand why young Thai males engaged in violence, and quantitative surveys used to assess all risk factors and provide evidence for intervention programs. Negative emotions related to violence (anger and depression) were assessed. The trial interventions, including ART and MM, were designed to reduce aggressive behaviors among youths and the program effectiveness of different cultural approaches between ART (Western treatments) and MM (Asian

therapies) was evaluated. The intention was to clarify which interventional approaches are able to reduce aggression and school violence in Thailand.

Chapter 5

Methodology

The study was conducted in three phases: preliminary study, cross-sectional study, and intervention program. The preliminary study involved qualitative research conducted in one technical college in Bangkok. This study aimed to develop an understanding of why young men in Thai technical colleges engage in violent situations, to identify risk factors for violence, and to inform the development of a school-based intervention (Wongtongkam, Ward, Day, & Winefield., in press). Next, a survey was administered in nine technical colleges in Bangkok (five colleges) and Nakhon Ratchasima (four colleges). The aim of this study was to explore risk factors which are related to anger expression and depressive symptoms. Finally, two brief (6-week) interventions (an anger management program and a Mindfulness Meditation program) were implemented and evaluated in a technical college setting. Levels of anger expression and depressive symptoms were assessed at one month and three month follow-up. Additionally, a semi-structured interview was employed to strengthen understanding of what features of each programs were associated with success. All study protocols were approved by the Flinders University Human Research Ethics Committee.

Phase I: Qualitative Study

A qualitative methodology was considered to be appropriate, because the research was essentially exploratory in nature. The main method of data collection was a semi-structured interview. A major advantage of this kind of interviewing is that respondents are allowed to answer questions in their own words with minimal control and direction from the interviewer. Apart from ensuring that all of the research topics were covered, the inter-viewer allowed the flow of the discussion to be

determined in part by the participants. This resulted in a more natural description of events by participants. The main disadvantage of the semi-structured interview is that the responses can sometimes be discursive and wide-ranging and not every issue raised might be covered by every respondent.

The interview was given a broad structure by using a schedule that covered four main topic areas: (a) the student's personal and a family background, (b) peer-family-school-community factors, (c) details of physical assaults, (d) substance abuse. On average, the interviews lasted 45 minutes. All interviews were tape recorded, with the student's permission (a consent form), and subsequently transcribed verbatim. Data were transcribed in Thai before being translated into English by the first author.

Students were asked at the beginning of interviews to provide aliases. The transcripts were analysed first by identifying the relationship between those factors and physical assault. The narratives relating to physical assault were then investigated to identify motivational statements that explained why the students engaged in fights.

The interviews were designed to allow participants freely to explore and discuss relevant experiences and perceptions of violence. The interviews were treated as a social encounter in which knowledge was shared, and not simply as an occasion for information gathering. Anonymity was assured, so that the participants were not at risk of incriminating themselves in criminal behavior. The study was approved by the Social and Behavioural Research Ethics Committee at Flinders University, Australia.

A convenience sample of 32 students was recruited and participants were invited to discuss their experience of, and reasons for, physical fighting. Participants were drawn from five departments in Ratchasittharam Technical College, which offers the Vocational Educational Certificate, Year Level I–III. Students were informed of the objective and process of the study by e-mail and then with a follow-up confirming the date and time of

the interview. A schedule of open-ended questions was used to guide the interview and to generate qualitative data concerning the social and cultural contexts within which violence occurs in Thai male youths. The concept of hegemonic masculinity was used as a guiding theoretical construct and questions explored issues such as control, lack of emotionality, physical toughness, and responsibility, and a range of other risk factors that have been associated with violence. All interviews were recorded and data were transcribed in the Thai language before being translated into English.

Phase II: Cross-sectional Survey

The survey was conducted in nine technical colleges in Bangkok and the Nakhon Ratchasima province. There are five technical colleges in Bangkok, including Meanburi Technical College, Kanchanapisek Mahankhon Technical College, Ratchasittharam Technical College, Donmuang Technical College and Dusit Technical College. The Technical Colleges in Nokhon Ratchasim province are Nakhon Ratchasima Technical College, Pak Thong Chai Technical College, and Luangphor Khun Technical College.

The sample size for the survey was determined by three factors; an estimate of the prevalence of the violent behaviors, the desired level of confidence intervals, and the acceptable margin of error.

The formula : $n = \dfrac{t^2 \times P(1\text{-}P)}{m^2} = 334.37 \sim 335$

n = required sample size

t = confidence level at 95% (standard value (z) = 1.96)

p = estimated prevalence of violent behaviors in Thai youths (31.5% = 0.32) [see Ruangkanchanasetr et al. (2005)]

m = margin of error at 5% (standard value = 0.05).

Cluster sampling was used (a whole classroom in each department), rather than random sampling, so the design effect formula was used to determined how much larger the sample size needed to be. In general, the design effect usually ranges from 1 to 3, and for this study was assumed to be 2.

$$\text{Number of samples X Design Effect} = 335 \text{ x } 2 = 670$$

Additionally, a non-response rate of 5% was taken to account in sample size calculations in order to reduce non-response bias. Therefore, the total sample required for this study was 704 (670+34). Participants were recruited from nine technical colleges in two provinces equating to approximately 78 students per college   (26 students per college in each year).

The total number of students attending the nine technical colleges, Year I–III, industrial faculty, was approximately 10,186. A total of 1,778 students was recruited through their classes. To ensure an equal chance of selection, the class selected in each department was randomized. The eligibility criteria were that participants had to be full-time students, aged 16–19 years old, working towards a Vocational Educational Certificate, and Year Level I–III. There were 80 students who did not complete questionnaires fully, and 62 students did not participate in the study.

5.1.   Instruments.

The following self-report scales were used: the Communities That Care Youth Survey (CTC-YS), State–Trait Anger Expression Inventory-2 (STAXI-II), the Center for Epidemiologic Studies Depression Scale (CES-D), Violent Behaviors and Violent Classification.

5.1.1. Risk and Protective Domains. Items in the CTC-YS purport to measure 21 risk factor and 11 protective factor constructs (Developmental Research and Programs), based on adolescents' drug use, delinquency, and violence (Hawkins et al., 1998). Individual, family, peer, school, and community-level risk and protective factors were measured. Most risk factor items were rated on a 4 point-scale ('definitely not true', 'mostly not true', 'mostly true' and 'definitely true'). Exceptions were community norms favorable to drug use ('very wrong' to 'not wrong at all'); perceived availability of drugs ('very hard' to 'very easy'); perceived availability of drugs ('very hard' to 'very easy') on a 4-point scale, and binge drinking was scored as a dichotomous variable (1=ever and 0=never). One item asked whether they had have ever used smokeless tobacco, but this item was deleted given the low prevalence of smokeless tobacco use in Thailand (Centers for Disease Control and Prevention, 2010). Additionally, items relating to some drugs (debisol, heroin, LSD, pain relievers, tranquilizers, stimulant drugs) were removed because there were no previous reports showing that Thai adolescents have access to these drugs. All protective factors were rated on 4-point scales and for most scales response options ranged from 'definitely yes' to 'definitely no'. A complete list of items included in each of the risk and protective factor scales is available in previous publications (Arthur et al., 2002; Glaser, van Horn, Arthur, Hawkins, & Catalano, 2005; Pollard, Hawkins & Arthur, 1999) or on request from the author.

5.1.2. Anger Expression. The State–Trait Anger Expression Inventory (STAXI-2) scale is a 32-item questionnaire that was developed to measure characteristic styles of coping with anger arousal. Participants were asked to rate the frequency with which they engaged in the items when feeling angry using a four-point Likert-type scale ranging from 1 (almost never) to 4 (almost always). Four eight-item subscales assess anger-in, anger-out, anger control-in, and anger control-out, respectively. The scale has

been widely used to measure anger in college students and has been shown to have acceptable reliability and validity (Garcia-Leon et al., 2002).

      5.1.3. Depression. The Center for Epidemiologic Studies Depression Scale (CES-D) is a widely used 20-item self-report measure that was originally designed for assessing depressive symptomatology in the general population (Radloff, 1977), but it is also used as a general depression screening tool (Williams, Pignone, Ramirez, & Stellato, 2002). The CES-D consists of 4 factors, including depressive affect symptoms (7 items), somatic/vegetative symptoms (7 items), interpersonal symptoms (2 items) and (lack of) positive affect symptoms (4 items), and the rating scales range from 0 (never or few) to 3 (usually). The sum of scaled scores ranges from 0 to 60, with higher scores indicating more negative symptoms. The CES-D has been used with Thai youths and demonstrated good psychometric properties (Trangkasombat, Larpboonsarp, & Havanond, 1997).

      5.1.4. Violent Behaviors. The measure of violence employed in this study was based on the Pittsburgh Youth Study's measure of serious violence (Loeber et al., 2003). The utility of focusing on serious violence as the delinquent behavior is that this form of delinquency is highly masculine, and the interrelationship among male youths, peer influence, and delinquency is associated with patterns of serious offending rather than with minor crimes (Steffensmeier & Allan, 1996). The original self-reported serious violence measure consists of five items: aggravated assault; two robbery items; rape; and gang fights. With the modified scale, the item about hurting or threatening to hurt someone to get them to have sex was deleted, but an item remained asking about trying to have a sexual relationship with someone against their will. The item asking about killing someone was also removed. Hence, this scale comprised only four items. The violence activities were to be assessed over the previous 6 months, and response categories with 6-point

Likert scales were 0 (0), 1–2 times (1), 3–5 times (2), 6–9 times (3), 10–19 times (4) and 20 or more times (5), respectively.

5.1.5. Violence Classifications. Violence categories based on behaviors are divided into victims, offenders, and witnesses (described below). There is some overlap between violent offending and victimization (Esbensen & Huizinga, 1991; Wells & Rankin, 1995), so the classification was determined by the participants, who were asked to categorize behavior into one of five groups: perpetrator, victim, perpetrator–victim, witness, and not belonging to any of these groups.

5.1.5.1. *Victimization* was divided into two types: overt and relational. Overt or direct victimization refers to being the target of aggressive actions by peers, including physical aggression. Relational or indirect victimization refers to being the object of aggressive actions designed to damage relationships and social status (Bauman & Summers, 2009). A self-report measure of victimization was modified from the SEQ-SR (Crick & Grotpeter, 1996), by assessing only 11 items (direct and indirect victimization) from 15 items, with a 6-point Likert-type scale. Items relating to receipt of prosocial behaviors were removed.

5.1.5.2. *Witnessing* violence was assessed by six items asking whether respondents had seen someone being beaten up or mugged, threatened with serious physical harm, shot or shot at with a gun, attacked or stabbed with a knife, chased by gangs or individuals, or seriously wounded in an incident of violence, with a 6-point Likert-type scale ranging from 0 (0) to 20 or more times (5).

5.1.5.3. *Violent offenses* asked whether they had been involved in attempting to cause harm to others (Lennings, Copeland & Howard, 2003). The self-report questionnaire was a slightly modified version of overt victimization from the

Problem Behavior Frequency Scale (Orapins & Kelder, 1995) with 5 items which asked respondents whether they had hit, pushed or shoved, threatened to hit, yelled or called mean names, threatened or injured someone with a weapon (gun, knife, club, etc.), over the past 6 months. The responses on a 6-point Likert Scale ranged from 0 (0) to 20 or more times (5).

5.1.6. *Validity and reliability of questionnaires*

A convenience sample of 32 voluntary participants was recruited from three departments (Electrical Power, Building Construction, Mechanical) offering the Vocational Educational Certificate, Year Level I–III, in a private technical school (Mubankru Technology School). Students were informed of the objective and process of the study by a teacher, and then by e-mail with a follow-up to confirm the date of completed questionnaires. E-mail was subsequently used for sending and receiving the self-report measures. In relation to test–retest reliability, the same questionnaire was sent to the same participants at two points in time, Time One (T1) and Time Two (T2), two weeks apart. The questionnaires were then matched to facilitate a check on test–retest reliability and internal reliability.

The translation of measures into Thai followed an established forward–backward translation procedure (McDermont & Palchanes, 1994). The self-report translation was carried out by three experts on youth development and behaviors with fluency in both English and Thai languages to ensure content equivalence/cultural validity. The back translation was done by two English teachers who had worked at high schools in Thailand for more than five years and who were familiar with Thai culture. Then, the principal researcher compared the equivalence of the English and back-translation versions, and agreement in measuring the self-reports was sought between the three experts in adolescent

behavior, the English teachers, and the principal researcher in order to ascertain the readability, clarity, and understandability of the translated version.

5.1.7. *Eligibility criteria in Cross-sectional Survey*

Nine technical colleges in Bangkok and Nakhon Ratchasima province were recruited, to facilitate comparison of urban (Bangkok) and suburban areas (Nakhon Ratchasima province). Stratified sampling was employed to obtain a sample of technical college students enrolled in the Vocational Educational Certificate, Year Level I–III. All departments within each college were selected, and a target class in each department was randomly selected. All students in the sampled classes were eligible to participate in the study. Within each class level in each department, replacement classes were also selected if recruitment of sampled classes was unsuccessful. Prior to survey administration, students received standardized instructions about confidentiality when answering questions. Additionally, informed consent forms were collected in the classroom on the day of the survey before questionnaires were completed. Self-administered questionnaires were conducted during two classroom sessions, half-hour periods in the morning and in the afternoon. Absent students completed surveys later under the supervision of the researcher. Upon survey completion, students received an amount equivalent to AUD $5 reimbursement for their time and participation in the study.

5.1.8. Intervention Programs

Even though there is a body of empirical support for the effectiveness of several anger reduction strategies, there is little evidence supporting the effectiveness of programs in youth with violence exposure in Thailand. Aggression Replacement Training (ART) was selected to be one of the implementation programs in the study because it is one of the best-evaluated Western aggression control interventions. The second intervention,

Mindfulness Meditation (MM), derives from the Buddhist religion and is a part of Asian interventions. More than 90% of Thais are Buddhists and Buddhism is regarded as the national religion. Buddhist traditions of MM are commonly incorporated into mainstream treatment for people with psychological problems such as anxiety (Kelly, 2008).

              5.1.8.1.   *Selection criteria*. One technical college in Bangkok was selected based on willingness to be involved in two trial programs. The students were recruited from any department in the college and were randomized into one of three groups: MM (n=40), ART (n=23), and Control (n=56) in pre-intervention. The no-treatment control group did not receive any intervention. Eligible participants (a) were current full-time students studying in technical colleges in Bangkok and Nakhon Ratchasima provinces from vocational year 1 to year 3; (b) had experience of engaging in physical fighting (whether as perpetrators, victims, or witnesses); (c) were willing to participate in the MM, ART, or control groups. Control group participants were partially matched with those in the treatment groups on most demographic variables, such as ages, many of the substantive characteristics (interests and social economic status), and being full-time students in the industrial faculty, but not on their level of risk of acting violently.

At the first session, participants received the research description, consent form, confidential personal information form, list of meditation benefits, and procedure for everyday practice. Participants then signed consent forms and completed the baseline measures prior to the beginning of the session. The outcome measures (including anger expression, depressive symptoms, and the rate of violent behaviors) were administered to the three groups (meditation, anger control, and control groups) one week prior to intervention and twice (one month and three months) following the end of intervention.

5.1.8.2. *Meditation.* The MM intervention in the study was modified from the Mindfulness-Based Stress Reduction (MBSR) program developed by the University of Massachusetts Medical Center (Kabat-Zinn, 1982). The study deviated from the original MBSR in the Somatic Relaxation (SR) technique and in the length of training. There was no SR practice in the study, and the length of meditation practices was increased to correspond to a traditional Thai meditation. The meditational activities were conducted at the college for three consecutive weeks by Buddhist monks who had practiced meditation and teaching for at least five years.

5.1.8.2.1. *Timing.* Each day's program started around 9.00 a.m. with activities including communal chanting and the provision of liturgical services, then meditation occurred until 12.00 noon. In the afternoon, participants attended lectures on how to behave towards parents, teachers, seniors, and friends, and discussed the consequences of doing bad things (physical fights, hazing, substance abuse etc.). The last session was communal chanting and sitting meditation conducting for one to two hours until 5 p.m. Participants attended all parts of the program from 9.00 a.m. to 5 p.m. every day during their training. Participants also visited a local jail and a home for children with intellectual disabilities.

5.1.8.2.2. *Content*. Concentration training begins with sitting meditation. Participants sit quietly with eyes closed and place their attention on breathing, either at the tip of the nose or the diaphragm. After that, a walking mediation is used as an alternative to sitting. To being walking meditation, participants simply stand, and then begin to walk at a fairly slow but normal walking pace and in a normal manner. Loving Kindness Meditation (LKM) involves quiet contemplation, often with eyes closed or in a non-focused state and an initial attending to the present moment. Then, participants direct their attention to their heart region and contemplate a person for whom they already

feel warm, tender, and compassionate feelings (e.g., their parents, friends, a close loved one, a pet) or a situation when they felt warm feelings.

5.1.8.3. *Aggression Replacement Training.* ART is a didactic program intended to teach prosocial behavior in lessons by using examples and role playing. The method contains three components: social competence training, aggression control, and moral education (Goldstein & Glick, 1994a). The sessions based on ART were delivered by three behavioral facilitators, all of whom had been trained in the ART process by psychologists. The ART program was scheduled once a week (1.00 p.m. to 5 p.m.) for four weeks.

5.1.8.3.1. Skill Streaming encourages youths to engage in series of activities intended to increase positive social interactions in real life environments (home, school, and community). The curriculum comprises six components: beginning social skills, advanced social skills, skills for dealing with feelings, alternatives to aggression, skills for dealing with stress, and planning skills.

5.1.8.3.2. Anger Control Training is designed to teach young people about self-control of anger. The participants are trained to respond to their anger with a chain of behaviors that included identifying triggers, identifying cues, using reminders, using reducers, and using self-evaluation. Participants are required to play an active role at each step by replacing the anger response with a more contained emotional reaction. In addition, at every level students were asked to practice these skills with their teachers and in their everyday interactions with others.

5.1.8.3.3. Moral Education is designed to raise the adolescent levels of fairness, justice, and concern with the needs and rights of others by using debates, role plays, and discussions. During training activities in the moral reasoning

component students were presented with specific problem situations then they considered the issue using guiding questions. This comprised a discussion of the right or wrong decisions that might be made with regard to the situation.

These participants were also taken to visit the jail and the home for children with mental disabilities as part of a half-day tour after completing the program.

5.1.8.4. *Post intervention interview*. In-depth interviews were carried out to determine a program's success in reducing anger levels, depressive symptoms, and violent behaviors, and to gain a broad understanding of the obstacles and success of trial programs. These used a semi-structured format recording comments, critiques, suggestions, and information on the intervention process and on the participants' reaction to the content and structure of the training (including information regarding reasons for absence and reasons for not doing exercises). Critiques and suggestions for modifying the program were solicited (i.e., topics to add or avoid, duration, number and order of topics, exercises, optimal number of participants, settings, and resources). A face-to-face interview was performed with each participant for approximately half an hour, with audio recording.

5.2. Data Analysis

A total of 119 convenient participants were recruited for the two intervention programs, with 40 for MM, 23 for ART, and 56 for the control group during pre-intervention. Descriptive statistics were used to summarize demographic information, and inferential statistics (univariate and bivariate statistics) were used to assess change on the dependent measures. The qualitative data were analyzed using content analysis and thematic analysis.

5.2.1. Qualitative Study (Phase I)

The qualitative data were analyzed using a grounded theory approach (Strauss & Corbin, 1998). This is an inductive and iterative process of generating, examining, and constantly comparing concepts and categories for similarities and contrasts, and to explore underlying meanings attached to the phenomenon under study (Dey, 1999). The iterative process was clarified progressively to understand male attitudes to Thai men and men's experiences of violence. Verbatim quotes from participants were reported in order to stay as close as possible to the meanings of masculine identity and their experiences of violence.

5.2.2. Validity and Reliability Testing.

The reliability and validity measures were evaluated before administering questionnaires in the survey. The reliability of a measure indicates the consistency with which it produces the same results at different times (test–retest reliability) and whether its items are consistently measuring the same thing (internal consistency reliability). Validity refers to the specific concept of the measurement that is intended to assess. The test–retest method focuses on stability of measures on the same data case across time.

        5.2.2.1. *Content validity* was assessed by conducting an extensive review of the literature on all self-reports (CTC-YS, STAXI-II, Violent Behaviors and Violence Classification), and then discussing it with experts in the field (two police officials and one forensic staff member) to revise some items of the questionnaires according to appropriate Thai circumstances, particularly in relation to the CTC-YS, Violence Classification and Violent Behaviors. Convergent validity was assessed between individual risk behaviors from CTC-YS and the Violent Behaviors. On the CTC-YS two scales asked about ever having been involved in illegal activities, each comprising

8 items, and there were 4 items on the Violent Behaviors scale. In order to assess criterion-related validity, the psychometric analysis aimed to examine the Violence Classification and Violent Behaviors measures in relation to anger psychological disorder (anger expression). Spearman's rank-order *rho* correlations were calculated to determine the strength of the scales' relationship with criterion measures, and to measure intercorrelations among scales. Nonparametric correlations were utilized because of non-normal distribution of all scales.

5.2.2.2. *Reliability Testing.* Internal consistency reliability was assessed using Cronbach's alpha. Values above 0.7 indicated acceptable reliability (Cronbach, 1951). Spearman's rho correlation was used to assess instruments' test–retest reliability. Correlation coefficients of >0.68, 0.36–0.68, and <0.35 were considered strong, moderate, or weak correlations, respectively (Taylor, 1990).

5.2.3. Cross-sectional Study (Phase II)

Descriptive data with interval and ordinal data were summarized as frequency distributions. Independent *t* tests were used for assessing means between Bangkok and Khorat province. An analysis of variance model (ANOVA) was used to examine mean-level differences across groups (violent behaviors, victims, witnesses, and perpetrators) across both regions and schools (Schéffe's post-hoc test was used to assess which of the groups differed, in paired comparisons). Hierarchical logistic regression procedures were then used to determine the extent to which anger and depression expression predicted violent behaviors. The hierarchical logistic regression model was used to minimize the differences between various colleges and departments, so that students in the technical colleges were the same across two provinces. Models were constructed to calculate maximum likelihood estimates of odds ratios (OR) and 95% confidence interval (95% CI)

of risk and protective factors (individuals, peers, family, school, community) on violent behavior. Confounding variables (ages and year levels) were controlled for by entering them into the logistic regression model one at a time and by comparing the adjusted ORs.

5.2.4. Post-Intervention Program (Phase III)

The post-intervention study using the quantitative survey and qualitative interviews was conducted one month and three months after completion of the intervention. With the quantitative post-intervention data, an analysis of variance model (two-way repeated-measures ANOVA) was used to compare violent behaviors, anger, and depression across the experimental and control groups at pre- and post-intervention (one and three months). Additionally, independent t tests were performed to test the effect of the kind of intervention (MM and ART) and time (one and three months) on violent behaviors, violent classifications and negative emotions (anger and depression).

According to the qualitative study, The open-ended questions asked participants about their reactions to Mindfulness Meditation and Aggression Replacement Training, such as satisfaction, benefits, strengths and weaknesses of the program, and how to improve the intervention. The in-depth interviews were conducted using audiotape recording, and each lasted approximately 30 minutes. Interviews were transcribed in Thai and then translated into English. The interview transcripts were analyzed individually for each participant to allow identification of themes emerging from the contents. Next, individual themes were integrated into group themes, such as behavioral and emotional changes, and therapeutic effects. The analysis was reviewed to check the relevance of the themes and any need for further integration or differentiation.

Chapter 6

Preliminary Study Results

The findings are reported in three parts: the preliminary study, the cross-sectional survey and the outcomes of the interventions. The preliminary study was a qualitative study that involved semi-structured interviews with 32 college students in a private technical college in Bangkok. The cross-sectional survey was carried out in two provinces (Bangkok and Nakhon Ratchasima), involving nine colleges (five colleges in Bangkok and four in Nakhon Ratchasima). The total number of students who participated was 1,778. The survey included five self-report questionnaires (Violent Behaviors, Violence Classifications, CTC-Youth Survey, CESD (depression inventory) and the Spielberger Anger scales [STAXI-II]). The final study comprised a trial of two different interventions: Mindfulness Meditation (MM) and Aggression Replacement Training (ART). Post-intervention testing occurred one and three months after completing each program. Semi-structured interviews were also conducted with participants post-intervention.

6.1.   Preliminary Study

Students from a private college in Bangkok were interviewed using semi-structured interviews. The interviews were transcribed and axial coding was used to make connections between the major categories. The purpose of this study was to identify areas for further inquiry in the second phase of data collection.

6.1.1. Participants

Thirty-two young men from three departments (Power–Electrical, Mechanical, and Building Construction) offering Vocational Education Certificate Year I–III participated in the study. The age of participants ranged from 16.5 to 18.5 years, and their daily income

ranged from US $3.21 to $3.75. Of the 32 participants, 65% to 75% used motorcycles to travel between school and home. The majority (75–100%) of participants reported that they drank alcohol, 75–90% smoked cigarettes, and a minority (10–25%) reported marijuana use. Additionally, methamphetamine was used by 10–12.5% of the sample, as shown in Table 1.

Table 1. Demographic data

Data	Departments in the Technical College		
	Power & Electrical	**Mechanical**	**Building**
Age (Mean ± S.D)			
• Year Level I	16.5 ± 0.5	-	-
• Year Level II	16.13 ± 0.35	16.62 ± 0.74	16.75 ± 0.74
• Year Level III	18.5 ± 1.22		
Daily income (Mean ± S.D)	$3.51 ± 0.63	$3.21 ± 0.80	$3.75 ± 1.37
Mode of transport to school (No.[%])			
• Motorbike	13 (65%)	6 (75%)	-
• Bus	7 (35%)	2 (25%)	2 (50%)
• Car	-	-	2 (50%)
Substance Abuse (No.[%])			
• Cigarette	18 (90%)	7(87.5%)	3 (75%)
• Alcohol	19 (95%)	6 (75%)	4 (100%)
• Marijuana	2 (10%)	2 (25%)	1(25%)
• Drug (Methamphetamine)	2 (10%)	1(12.5%)	0 (0%)

The interviews revealed that fights occurred when students were staring at other students who were not friends or were from different colleges. Typically they began with throwing objects (glass bottles, bricks) at each other. Physical fights were most likely to happen at bus stops and along the bus route to or from school. Weapons were often used, including swords, knives, and wooden sticks, which were kept in rental units used for changing into or out of school uniforms, concealing weapons, and partying.

6.1.2. Peer Networks

Friendship groups or social networks are a key part of social, cognitive, and emotional development during adolescence because they provide social support and a context in which young people learn social skills (Erdley, Nangle, Newman, & Carpenter, 2001). In the technical college, social networks are very strong because students spend most of their time together, both in class and afterwards. There is a small number of students in each class (6–30 students), so students feel that they have to stick together and assist each other. Indeed, many students go everywhere as a big group in order to protect each other at bus stops or just to "hang out". As can be seen in the following quotes (emphasis added), this leads to the development of powerful emotional relationships between students.

> *M (**Mechanical, Year II**): … when we hang out some places—we go together as a big group, around 20 people.*

> *Am (**Mechanical, Year II**): …We have to gather friends as a big group before going back together—that is safe…. They may do something with us but we have many friends to keep an eye on that. If something is happening here, we can protect ourselves, such as not getting off the bus or not letting someone get onto the bus.*

Additionally, a clear hierarchical system exists between junior and senior students in the college. Older students are held in high regard by junior students, who are supposed to obey senior students without argument. This is a traditional characteristic in technical college students.

> *Op (**Power & Electrical, Year II**): I am waiting for junior students to finish the class and send them back home [sending them to get onto the bus]. Yes [It is traditional behavior]. Senior students did it for me last year, so this year I have to do it for junior friends.*

> *Singh (**Mechanical, Year II**): Senior students find it easy to get along with them and feel like they are a big brother. Friends are good— we get along with each other. Junior students are good because they respect senior students as we did in Year I.*

6.1.3. School Attachment

Participants reported a high level of attachment to their college, and generally reported that the quality of teaching was good. Despite this, however, they were still behaving violently.

> *M (Mechanical, Year II): I am satisfied with my grade point score. Teachers in the school are O.K, they are <u>good at teaching</u>. I know a lot of stuff about cars. <u>Friends are good</u> too. If I can't manage, they are willing to help me. <u>We help each other</u>.*

> *Am (Mechanical, Year II): They (teachers) are <u>good in taking care</u> of students; they also <u>try to help</u> students to graduate from the school.*

> *Chud (Building Construction, Year II): It (the college) is <u>a good place</u> and is quiet.*

6.1.4. Starting Fights

Physical fights were most likely to result from provocation or bullying, in particular from other male students who were from different colleges. Participants suggested that the "challenge message" from staring ("Are you cool?") often quickly escalated to physical aggression (throwing glass bottles or bricks) and verbal abuse before fighting. Such aggressiveness may be understood as a reassertion of masculinity when men are perceived as threatened (Ptacek, 1988).

> *Dear (Power & Electrical, Year II): I can't bear with… Just like they <u>look at me</u> as "Do you have any problems with me? If you have – come on guys..."*

> *Ping (Power& Electrical, Year II): The fight happened because my friend had been <u>bullied</u> every day when he was going to the school….*

On the other hand, teasing or bullying between friends was regarded as a routine activity that students commonly engage in and which does not routinely lead to violence. In this way, students were able to distinguish between teasing and provocation from friends (which was normal and routine) and teasing and provocation from students of other colleges (which was a "challenge message" that resulted in physical violence).

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Au (Power& Electrical, Year II): Just a <u>normal activity</u> [teasing and bullying each other among friends] we do when we stay together.

Am (Power& Electrical, Year II): Yes, I do [like to tease or bully friends]. .. I enjoy it... No, never (friends never got angry). Actually, they are bullying me back, <u>not fighting.</u>

Man (Power& Electrical, Year II): No [no fighting], we get along with each other very well and <u>never had any arguments </u>in our groups. We know when we do [provoking each other], <u>just make fun</u>.

Participants explained in more detail about the location of physical violence with students from other colleges, such as when on the bus or at the bus stop. This suggests the *ad hoc* nature of physical violence, which occurs because of the logistics of getting to/from college, rather than necessarily being premeditated. The bus interchanges (where students from different colleges mix) therefore seem to be sites of violence.

Tee (Power& Electrical, Year III): …We drive a motorbike to the school—that is OK. It is not quite safe when we drive a motorbike but if we <u>catch a bus</u> we will face <u>other dangers</u> as well. … I was waiting for <u>a bus</u> at the bus stop, then I saw them getting off at the bus stop where I stood, and they <u>chased us with swords right away</u>…… We have a chance to <u>meet other schools in the same bus</u>.

Joke (Mechanical, Year II): We have <u>a lot of fights</u> because our homes are <u>on the bus route</u>. There are many schools along <u>the bus </u>route….. We <u>cannot avoid it—just going along the way</u>….I cannot wear different clothes; the school does not allow it.

6.1.5. A Rental Place

Under the regulations of the Ministry of Education in Thailand, all students have to wear a school uniform and are not able to carry any weapons at school. The person's school is obvious from the uniform worn, which increases the likelihood of violence (a 'symbol' for violence). A number of participants talked about the need to rent a place (a flat, unit, etc.) for changing from casual clothes into school uniform and storing any weapons. By renting a flat, students are able to avoid fights on the way to the school by wearing casual clothes, and they can also pick up weapons kept in the rental house. Additionally, the rental house

is a party place for friends where they can use illicit substances such alcohol, cigarettes, and drugs.

> *Bank (Power& Electrical, Year II): I kept them (swords or knives) in a rented room where I was always storing clothes from casual to a formal uniform before going to the school. It (rental house) depends on the area, some places are around 1,000–1,500 Baht (~ $US 28.55–42.85), or may be up to 2,000 Baht ($US 57.15). Yes, (every department) doing the same to keep weapons and changing school uniforms in a rental house.*

> *Mo (Power& Electrical, Year III): We rent a house which is close to the school for changing clothes. When I go to the school, I am not wearing the school uniform. I will change my casual clothes to school uniform in the rental house, and we keep swords … there.*

> *Mo (Power& Electrical, Year III): We will engage in a fight every Friday, almost every Friday. Sometimes, we drink alcohol in the home we rent, we always do it, we are addicted to alcohol and—not going to school—a lot of absences.*

6.1.6. Psychological Consequences

Physical fights among technical college students typically led to psychological distress, depression, and anger. Most students felt stressed, especially in the morning before they caught a bus to the college. Fights without weapons and without friends were regarded as potentially life-threatening. Nevertheless, students did not feel much stress or danger on the way back home in the afternoon (after finishing the class), because at these times they would be accompanied by lots of friends catching the bus together.

> *Pang (Power& Electrical, Year II): Yes, I feel that [stress] especially in the morning, but in the afternoon there are lots of students so I feel O.K and not afraid of that too much. When the class finishes, all year levels and departments finish at the same time.*

> *Tab (Power& Electrical, Year III): Yes. I am stressed resulting from thinking too much. I thought that if we chased them today, when we went back home on the other day what would happen [it has a probability to be attacked by other college students]. So when the class finished I have to wait for friends and go back home together as a big group. It can prevent mistakes happening [friends keep an eye on the situation and help each other].*

> *Tik (Power& Electrical, Year III): I had some kind of awareness of the fight sometimes because I am afraid of meeting them [if he meets other college students alone he could get injured during the fight].*

With respect to negative emotions, anger arousal did not usually lead directly to physical fighting. Rather, participants reported feeling angry when their friends were injured or they had been provoked by other college students. Outward expression of anger is considered to be a part of masculinity because this emotion activates individuals for action and leads to a desire for retaliation (Agnew, 1985, 2006).

> *Joke (Building Construction, Year II): I will get <u>angry</u> if my friend gets injuries.*
>
> *Ping (Power& Electrical, Year II): No, I was not [afraid of the fight], just feeling <u>angry</u> [because his friend were provoked every day].*

6.1.7. Revenge

Revenge appears to be a significant component in the process of technical college fights. It is noted that retribution is referred to as a psychological reward; that "beating the odds" may generate a sense of accomplishment (Lyng, 1990) and thereby increase self-esteem and a stronger sense of masculinity. Indeed, when technical college students are injured while engaging in fights against other colleges, revenge from the other college is effected on the same day or the day after the fight.

> *Joke (Building Construction, Year II: In the <u>evening </u>of that day.*
>
> *Chud (Building Construction, Year II): <u>Next day</u> after my friend was provoked.*

The findings reveal that the majority of violence between students occurred outside school, including at bus interchanges where students from different colleges were more likely to interact. One of the key motivations for fighting was revenge from previous fights, although most students did not know the original cause of the fight. Students reported pooling money to rent a shared flat close to their college where they could change into/out of school uniform (to reduce the risk of being a victim of violence) and hide weapons (to

defend themselves from violence). Nevertheless, these findings cannot be generalized to all technical colleges in Thailand because of the small sample size and convenience sampling. Therefore, the second phase was a cross-sectional survey conducting in two large provinces, Bangkok as a capital and an urban area, and Khorat province as a suburban area.

In summary, the analysis of the interviews suggested that strong friendships develop in technical colleges in the context of a hierarchical dominance of senior students and these are an important driver of school violence. Powerful relations between younger and older students lead to younger students doing whatever senior students desire, including engaging in fighting. Retaliation was another important motivator, particularly when friends were injured in fights.

Chapter 7

Cross-Sectional Study Results

The cross-sectional study is reported in two sections: descriptive study; a hierarchical logistic regression model. The descriptive data are presented as numbers and percentages or means. The analysis of difference between provinces (independent t test) considered violent behaviors, violence classifications (offenders, direct and indirect victims, and witnesses), and negative emotions (anger and depression). A mixed effect multilevel logistic regression model classified colleges as a fixed effect and departments in the colleges as a random effect. A p value less than .05 within group comparisons was used to determine statistically significant differences.

7.1.   Reliability and Validity of Self-report Questionnaires.

The self-report measures (CTC-YS, Violent Behaviors, Violence Classifications, CESD and STAXI-II) were tested for validity and reliability before conducting the cross-sectional survey. A convenience sample of 32 voluntary male participants was recruited from three departments (Electrical–Power, Building Construction and Mechanical) offering the Vocational Educational Certificate, Year Level I–III, in a private technical college.

Internal consistency reliability was assessed by Cronbach's alpha for four domains (School, Peer and Individual, Community, and Family) on the CTC-YS index, all of which showed overall high alpha coefficients. Internal consistency was 0.87 on School, with 0.92 on Peer and Individual, 0.91 on Community, and 0.95 on Family domains. The internal consistency was less than 0.70 on the low commitment scale (Risk Factor) for School domain, with social skill subscale (Protective Factor) for Peer and Individual, with

Community rewards for prosocial involvement (Protective Factor), as presented in Table 2. The STAXI-II showed the highest overall internal consistency (Table 3), except for the Anger-In subscale which had only a moderate alpha coefficient ($\alpha=0.62$). With regard to the violence indices, all subscales of Violent Behaviors and Violence Classification (offenders, victims, and witnesses) revealed high internal consistency reliability coefficients with the highest on the offenders scale (0.94), as shown in Table 4.

Table 2. Internal consistency among protective and risk factors on CTC-Youth Survey self-report

Domain	Items	Cronbach alpha
School		
• Overall	17	0.87
Protective Factor		
• School opportunities for prosocial involvement	5	0.78
• School rewards for prosocial involvement	4	0.81
Risk Factors		
• Low commitment	7	0.63
• Poor academic performance	1	N/A
Peer and Individual		
• Overall	61	0.92
Protective Factors		
• Religiosity	1	N/A
• Belief in the moral order	8	0.93
• Social skills	4	0.48
• Interaction with prosocial peers	5	0.90
Risk Factors		
• Friends' use of drugs	4	0.80
• Friends' delinquent behaviors	7	0.82
• Peer rewards for antisocial behaviors	4	0.69
• Early initiation of drug use	9	0.78
• Rebelliousness	3	0.77
• Sensational seeking	3	0.92
• Favorable attitudes towards antisocial behaviors	5	0.82
• Favorable attitudes towards of drug uses	4	0.76
• Low perceived risk of drug use	4	0.95
Community		
• Overall	30	0.91
Protective Factors		
• Community rewards for prosocial involvement	2	0.91
• Community opportunities for prosocial involvement	4	0.64
Risk Factors		
• Perceived availability of drugs	4	0.89
• Perceived availability of firearm	1	N/A
• Laws and norms favorable to drug use	6	0.80
• Low neighborhood attachment	3	0.92
• Community disorganization	5	0.86
• Transition and mobility	5	0.73
Family		
• Overall	37	0.95
Protective Factor		
• Family rewards for prosocial involvement	4	0.86
• Family attachment	4	0.92
• Family opportunities for prosocial involvement	3	0.93
Risk Factors		
• Family history of antisocial behaviors	9	0.77
• Parental attitudes favorable toward drug use	3	0.79
• Parental attitudes favorable toward antisocial behaviors	3	0.85
• Poor family management	8	0.89
• Family conflict	3	0.79

N/A: Not Applicable.

Table 3. Internal consistency of psychological measurements (anger and depression)

Instruments	Items	Cronbach alpha
STAXI-II (Anger)		
Overall	32	0.90
• Anger-Out	8	0.79
• Anger-In	8	0.62
• Anger Control-Out	8	0.80
• Anger Control-In	8	0.80
CES-D (Depression)		
Overall	20	0.85

Table 4. Internal consistency of violent behaviors and violence classification

Definition	Items	Cronbach alpha
Violent Behaviors	4	0.73
Violence Classification		
• Offenders	6	0.94
• Victims		
- Indirect	5	0.74
- Direct	6	0.85
• Witnesses	5	0.89

7.2. The Survey Study

Of the total participants from Certificate Year I–III, and a total enrolment of 7,100 students (25.04%) studying in industrial trade courses from nine colleges in ten departments, a total of 1,778 participated in the study. The vast majority (97%) were male, ages 14–26 years old with mean age 16.89±1.17 years (Means±S.D.) Of the total, 46.63% were in Year I, 28.33% in Year II, and 25.06% in Year III. In terms of academic performance 12.64% had a Grade Point Average (GPA) of 1–2, 54.59% had a GPA of 2–3, and 32.77% had a GPA of 3–4. Prevalence rates and frequency of violent behaviors, violence classifications (offenders, direct victims, indirect victims, and witnesses), and protective and risk factors were identified both in total and divided by province, as shown from Table 5 to Table 22.

Table 5. Prevalence rates of violent behaviors.

Violent Behaviors n(%)	Total (n=1,752)			Bangkok (n=958)			Nakhon Ratchasima Province (n=794)			*t*	df	*p*
	0	**1–5 times**	**>5 times**	**0**	**1–5 times**	**>5 times**	**0**	**1–5 times**	**>5 times**			
Involved in a gang fight	1,021 (58.28)	627 (35.79)	104 (5.94)	543 (56.68)	348 (36.33)	67 (6.99)	478 (60.20)	279 (35.14)	37 (4.66)	2.87	1750	.004*
Means ± S.D.		0.47±0.60			0.50±0.62			0.44±0.58				
Using weapons to get money or things	1439 (87.84)	171 (9.76)	42 (2.40)	820 (85.59)	107 (11.17)	31 (3.24)	719 (90.55)	64 (8.06)	11 (1.39)	3.95	1750	.000*
Means ± S.D.		0.14±0.41			0.17±0.45			0.10±0.35				
Attacked someone with weapons	1,312 (74.89)	364 (20.78)	63 (3.60)	682 (71.19)	224 (23.28)	52 (5.43)	630 (79.35)	140 (17.63)	24 (3.02)	4.59	1750	.000*
Means ± S.D.		0.29±0.54			0.34±0.57			0.23±0.49				
Forced someone to have sex	1,535 (87.61)	171 (9.76)	46 (2.63)	842 (87.79)	92 (9.60)	24 (2.51)	693 (87.28)	79 (9.95)	22 (2.77)	-0.03	1750	.973
Means ± S.D.		0.15±0.42			0.14±0.41			0.15±0.43				

*Note: *p< .05*

The prevalence rate for involvement in a gang fight (BKK and Khorat provinces) was 41.73%; with 35.79% of participants reporting that they had been involved in a gang fight between 1–5 times in the past six months. Nearly 20% of youths used weapons to get money or other things; more than 20% attacked someone with weapons, and less than 15% of participants had tried to have sexual relations with someone against their will (1–5 times). Comparing violent behaviors between provinces, almost all types of violent behavior were more prevalent in BKK than in Khorat province. The highest prevalence of violent behaviors in BKK was involvement in a gang fight (Means±S.D:0.50±0.62), followed by attacking someone with weapons (Means±SD: 0.34±0.57). Almost 10% of youths in both BKK and Khorat provinces tried to force someone to have sex, but there was a slightly higher rate of sexual abuse in Khorat province (9.95%) than in BKK (9.60%). There were statistically significant differences for nearly all violent behaviors between Bangkok and Khorat province, except for sexual assaults.

Table 6. Prevalence rates of offender behaviors.

Offender Behaviors n(%)	Total (n=1,728)			Bangkok (n=942)			Nakhon Ratchasima Province (n=786)			t	df	p
	0	1–5 times	>5 times	0	1–5 times	>5 times	0	1–5 times	>5 times			
Punching	1,024 (59.26)	621 (35.94)	83 (4.80)	566 (60.08)	329 (34.93)	81 (8.60)	458 (58.27)	292 (37.15)	36 (4.58)	0.48	1726	.630
Means ± S.D.	0.45±0.58			0.44±0.58			0.46±0.58					
Pushing	1,017 (58.85)	621 (35.94)	90 (5.21)	549 (58.28)	341 (36.20)	75 (7.96)	468 (59.54)	280 (36.52)	38 (4.83)	0.78	1726	.435
Means ± S.D.	0.46±0.59			0.47±0.60			0.45±0.58					
Name calling	999 (57.81)	597 (34.55)	132 (7.64)	531 (56.37)	333 (35.35)	80 (8.49)	468 (59.54)	264 (33.59)	54 (6.87)	1.56	1726	.119
Means ± S.D.	0.49±0.63			0.51±0.64			0.47±0.62					
Chased with weapons	1,327 (76.79)	346 (20.02)	55 (3.18)	696 (73.89)	214 (22.72)	52 (5.52)	631 (80.28)	132 (16.79)	23 (2.93)	2.83	1726	.005*
Means ± S.D.	0.26±0.50			0.29±0.52			0.22±0.48					
Injured someone with weapons	1,358 (78.59)	321 (18.58)	49 (2.84)	717 (76.11)	195 (20.70)	30 (3.18)	641 (81.55)	126 (16.03)	19 (2.42)	2.35	1726	.018*
Means ± S.D.	0.24±0.49			0.27±0.51			0.20±0.46					

*Note: *p< .05*

With regard to total prevalence rates of offenders, approximately 35% of participants reported that they had been involved in punching, pushing, and name calling more than 5 times in the past six months. There was a slightly higher rate of punching behavior in Khorat province than in BKK, 0.46±0.58 and 0.44±0.58 respectively. On the other hand, the rates of name calling and threatening or chasing with weapons were higher in BKK, as was the rate of injuring someone with weapons. The offender behaviors related to weapons (threatened or chasing with weapons and injuring with weapons) were significantly different between Bangkok and Khorat provinces.

Table 7. Prevalence rates of direct victim behaviors.

Direct victim behaviors n(%)	Total (n=1,727)			Bangkok (n=943)			Nakhon Ratchasima Province (n=784)			*t*	df	*p*
	0	1–5 times	>5 times	0	1–5 times	>5 times	0	1–5 times	>5 times			
Been hit	995 (57.61)	627 (36.31)	105 (6.08)	527 (55.89)	353 (37.43)	63 (6.68)	468 (59.69)	274 (34.95)	42 (4.45)	2.16	1725	.030*
Means ± S.D.		0.48±0.60			0.50±0.61			0.45±0.59				
Been pushed	911 (52.75)	690 (39.35)	126 (7.30)	501 (53.13)	372 (39.45)	70 (7.42)	410 (52.30)	318 (40.56)	56 (7.14)	0.302	1725	.763
Means ± S.D.		0.54±0.62			0.54±0.63			0.54±0.62				
Been yelled at	809 (46.84)	677 (39.20)	241 (13.95)	420 (44.54)	376 (39.87)	147 (15.59)	389 (49.62)	301 (38.89)	94 (11.99)	2.05	1725	.040*
Means ± S.D.		0.67±0.70			0.71±0.71			0.62±0.68				
Been threatened with hitting	1,194 (69.14)	449 (26.00)	84 (4.86)	628 (66.60)	266 (28.21)	49 (5.20)	566 (72.19)	183 (23.34)	35 (4.46)	2.26	1725	.023*
Means ± S.D.		0.35±0.57			0.36±0.58			0.32±0.55				
Been threatened with weapons	1,253 (72.55)	404 (23.39)	70 (4.05)	650 (68.93)	250 (26.51)	43 (4.56)	603 (76.91)	154 (19.64)	27 (3.44)	3.91	1725	.023*
Means ± S.D.		0.31±0.54			0.35±0.56			0.26±0.51				
Been asked to fight	1042 (60.34)	581 (33.64)	104 (6.02)	543 (57.58)	335 (35.52)	65 (6.89)	499 (63.65)	246 (31.38)	39 (4.97)	3.12	1725	.002*
Means ± S.D.		0.45±0.60			0.49±0.62			0.41±0.58				

*Note: *p< .05*

The prevalence rates for victimization (direct victims) were high, with nearly 40% reporting that they had been pushed, yelled at or hit between 1 and 5 times in the past six months. The highest prevalence rate of direct victimization, more than 5 times within six months, was being yelled at (13.95%). The victimization rates were significantly different between Bangkok and Khorat province, apart from being pushed.

Table 8. Prevalence rates of indirect victim behaviors.

Behaviors n(%)	Total (n=1,728)			Bangkok (n=943)			Nakhon Ratchasima Province (n=785)			t	df	p
	0	1–5 times	>5 times	0	1–5 times	>5 times	0	1–5 times	>5 times			
Friends won't like you unless you do	1,073 (62.09)	595 (34.43)	60 (3.47)	557 (59.07)	342 (36.27)	44 (4.67)	516 (65.73)	253 (32.23)	16 (2.04)	3.98	1726	.000*
Means ± S.D.		0.41±0.55			0.45±0.58			0.36±0.52				
Spread a false rumor	1,009 (58.39)	667 (38.60)	82 (4.75)	522 (55.36)	369 (39.13)	52 (5.51)	487 (62.04)	268 (34.14)	30 (3.82)	3.38	1726	.001*
Means ± S.D.		0.46±0.58			0.50±0.60			0.41±0.56				
Been left out on purpose during activities	1,186 (68.63)	463 (26.79)	79 (4.57)	607 (64.37)	281 (29.80)	55 (5.83)	579 (73.76)	182 (23.18)	24 (3.06)	4.57	1726	.000*
Means ± S.D.		0.35±0.56			0.41±0.59			0.29±0.51				
Kept others from liking you	1,214 (70.25)	446 (25.81)	68 (3.94)	639 (67.76)	256 (27.15)	48 (5.09)	575 (73.25)	190 (24.20)	20 (2.55)	3.43	1726	.001*
Means ± S.D.		0.33±0.54			0.37±0.57			0.29±0.50				
Told lies about you	1,143 (66.15)	502 (29.05)	83 (4.80)	599 (63.52)	288 (30.54)	56 (5.94)	544 (69.30)	214 (27.26)	27 (3.44)	2.85	1726	.004*
Means ± S.D.		0.38±0.57			0.42±0.60			0.34±0.54				

*Note: *p< .05*

The rates of spreading a false rumor between 1–5 times were the highest form of indirect victim behavior in Bangkok and Khorat provinces, 38.60% and 34.14% respectively. The lowest victimization rates were 'keeping others from liking them' (Bangkok: 25.81%) and 'being left out on purpose' (Khorat: 23.18%). There were significant differences between Bangkok and Khorat provinces for all indirect victimization rates.

Table 9. Prevalence rates of witness behaviors.

Behaviors n(%)	Total (n=1,730)			Bangkok (n=943)			Nakhon Ratchasima Province (n=787)			*t*	df	*p*
	0	1–5 times	>5 times	0	1–5 times	>5 times	0	1–5 times	>5 times			
Seen friends being hit	778 (44.97)	827 (47.78)	126 (7.28)	476 (50.48)	404 (42.84)	63 (6.68)	302 (38.32)	423 (53.68)	63 (7.99)	–3.06	1729	.002*
Means ± S.D.		0.62±0.61			0.56±0.61			0.69±0.60				
Seen friends being pushed	824 (47.63)	788 (45.52)	118 (6.82)	486 (51.54)	394 (41.78)	63 (6.68)	338 (42.95)	394 (50.06)	55 (6.98)	–2.00	1728	.045*
Means ± S.D.		0.59±0.61			0.55±0.61			0.64±0.60				
Seen friends being yelled at	1,004 (58.03)	631 (36.45)	95 (5.49)	542 (57.48)	347 (36.80)	54 (5.73)	462 (58.70)	284 (36.09)	41 (5.20)	0.895	1728	.371
Means ± S.D.		0.47±0.59			0.48±0.60			0.46±0.59				
Seen friends being chased by gangs or individual	1,122 (64.86)	532 (30.73)	76 (4.39)	612 (64.90)	291 (30.86)	40 (4.24)	510 (64.80)	241 (30.62)	36 (4.57)	0.328	1728	.743
Means ± S.D.		0.39±0.57			0.39±0.56			0.39±0.57				
Seen friends threatened with weapons	1,106 (63.96)	553 (31.95)	71 (4.10)	589 (62.46)	313 (33.19)	41 (4.35)	517 (65.69)	240 (30.50)	30 (3.81)	0.99	1728	.318
Means ± S.D.		0.40±0.56			0.41±0.57			0.39±0.57				

*Note: *p< .05*

Nearly 50% of participants in Bangkok reported that they had seen the behaviors 'being hit' and 'being pushed' between 1–5 times in the last six months, but these rates were higher in the Khorat province than Bangkok, 53.68% (seeing hit), 50.06 % (seeing pushed), respectively.

Table 10. Prevalence rates of anger emotions in total and by provinces.

Anger Expression n(%)	Numbers (%)						*t*	df	*p*
	Total (BKK & Khorat) (n=1,517)		Bangkok (BKK) (n=832)		Khorat Province(n=685)				
	Normal anger	High anger (>75th P)	Normal anger	High anger (>75th P)	Normal anger	High anger (>75th P)			
Anger-Out	1,179 (77.72)	338 (22.28)	618 (74.28)	214 (25.72)	561 (81.90)	124 (18.10)	4.45	1515	.000*
Means ± S.D.	15.90±4.10		16.33±4.22		15.39±3.89				
Anger-In	1,145 (75.48)	372 (24.52)	614 (73.80)	218 (26.20)	532 (77.66)	153 (22.34)	3.65	1515	.000*
Means ± S.D.	16.89±4.43		17.24±4.35		16.43±4.45				
Control-Out	1,202 (79.24)	315 (20.76)	626 (75.24)	206 (24.76)	576 (84.09)	109 (15.91)	5.14	1515	.000*
Means ± S.D.	18.48±5.12		19.09±5.09		17.74±5.07				
Control-In	1,141 (75.21)	376 (24.79)	601 (72.24)	231 (27.76)	540 (78.83)	145 (21.17)	4.62	1515	.000*
Means ± S.D.	18.80±5.48		19.39±5.38		18.09±5.53				
Missing	253(14.29)		143(14.67)		110(13.84)				

*Note: *p< .05*

One in five students had high anger-in levels and high control-in levels (>75th percentile). High anger-out expression and high control-out scores were observed in 22.28 % and 20.76% of the sample, respectively. BKK had a larger number of students with high anger expression scores in every mode (Anger-Out, Anger-In, Control-Out, and Control-In) than Khorat province. High anger-in and high control-in scores were almost 10% lower in Khorat than in BKK. Similarly, 25% of students with high anger-out and high control-out were in BKK (10% higher than in Khorat province). There were significant differences between Bangkok and Khorat province participant scores for all anger items.

Table 11. Prevalence rates of depressive levels in total and by provinces.

Depression	Numbers (%)						t	p value
	Total (BKK & Khorat) (n=1,710)		Bangkok (BKK) (n=944)		Khorat Province (n=766)			
n(%)	Normal emotions	Depression ($>75^{th}$ percentile)	Normal emotions	Depression ($>75^{th}$ percentile)	Normal emotions	Depression ($>75^{th}$ percentile)		
Depression	1,294 (75.67)	416 (24.33)	680 (72.03)	264 (27.97)	614 (80.16)	152 (19.84)	4.56	.000*
Means ± S.D.	16.20±8.02		16.99±8.53		15.22±7.24			
Missing	60 (3.39)		31 (3.18)		29 (2.97)			

*Note: *p< .05*

One in four students in BKK and Khorat province reported experiencing depressive symptoms, with higher rates reported in BKK.

Table 12. Relation of negative emotion scale to odds ratios of violent behaviors by dividing clusters of colleges (fixed effect) and departments in the colleges (random effect).

Negative emotion scales	Odds Ratio of violent behaviors (95% CI)							
	A gang fight		Using weapons to get money or things		Attacking someone with weapons		Forcing someone to have sex	
	Reference: each anger item below the 75th percentile							
	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs
Control-Out	0.77	0.78	0.78	0.78	0.90	0.89	0.80	0.79
	(0.54–1.10)	(0.55–1.12)	(0.44–1.40)	(0.44–1.40)	(0.60–1.36)	(0.59–1.35)	(0.45–1.41)	(0.45–1.41)
Anger-Out	1.52	1.56	1.21	1.20	1.67	1.67	1.37	1.33
	(1.16–1.20)*	(1.18–2.05)*	(0.81–1.80)	(0.80–1.79)	(1.23–2.25)*	(1.24–2.26)*	(0.92–2.02)	(0.90–1.98)
Control-In	0.72	0.69	0.43	0.44	0.67	0.67	0.52	0.54
	(0.52–1.01)	(0.49–0.97)*	(0.24–0.75)*	(0.25–0.78)*	(0.45–0.98)*	(0.45–0.99)*	(0.30–0.89)*	(0.31–0.93)*
Anger-In	1.28	1.29	1.75	1.82	1.19	1.23	1.55	1.62
	(0.95–1.72)	(0.96–1.63)	(1.14–2.69)*	(1.18–2.80)*	(0.85–1.66)	(0.88–1.72)	(1.01–2.37)*	(1.05–2.49)*
Depression	1.40	1.40	2.06	2.05	1.50	1.50	1.92	1.91
	(1.11–1.76)*	(1.11–1.76)*	(1.51–2.81)*	(1.50–2.80)*	(1.17–1.93)*	(1.17–1.93)*	(1.41–2.62)*	(1.40–2.61)*

*Note: *p< .05;* Adjusted ORs: ages and year levels.

Regarding crude ORs and adjusted ORs, students with high anger-out expression were more likely to have been involved in a gang fight and attacked someone with weapons than students with normal anger-out levels. Similarly, high anger-in expression was identified as a risk factor for robbery and sexual assault. Nevertheless, control-in expression appears to act as a protective factor for all violent behaviors. Depression was strongly related to all violent behaviors.

Table 13. Relation of negative emotion scales to odds ratios of offender behaviors by dividing clusters of colleges (fixed effect) and departments in the colleges (random effect).

Negative emotions scales	Odds Ratio of offender behaviors (95% CI)									
	Hit		Pushed or shoved		Yelled at		Threatened with weapons		Injured someone with weapons	
	Reference: each anger item below the 75th percentile									
	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs
Control-Out	1.01 (0.70–1.46)	1.01 (0.70–1.47)	0.80 (0.56–1.15)	0.79 (0.55–1.14)	0.77 (0.54–1.09)	0.76 (0.53–1.08)	0.86 (0.56–1.33)	0.85 (0.55–1.33)	0.83 (0.53–1.31)	0.83 (0.53–1.31)
Anger-Out	1.90 (1.43–2.53)*	1.89 (1.42–2.52)*	2.04 (1.54–2.71)*	2.04 (1.54–2.71)*	1.87 (1.42–2.46)*	1.87 (1.42–2.47)*	1.73 (1.26–2.37)*	1.74 (1.27–2.38)*	1.88 (1.36–2.58)*	1.86 (1.35–2.59)*
Control-In	0.64 (0.46–0.91)*	0.66 (0.46–0.93)*	0.79 (0.56–1.11)	0.81 (0.57–1.14)	0.96 (0.69–1.34)	0.98 (0.70–1.37)	0.61 (0.40–0.92)	0.61 (0.40–0.93)	0.58 (0.38–0.90)*	0.60 (0.39–0.93)*
Anger-In	0.92 (0.68–1.24)	0.96 (0.70–1.30)	0.90 (0.66–1.21)	0.93 (0.68–1.26)	0.96 (0.71–1.30)	1.00 (0.74–1.35)	1.13 (0.79–1.60)	1.16 (0.81–1.65)	1.12 (0.78–1.61)	1.18 (0.82–1.69)
Depression	1.43 (1.13–1.81)*	1.45 (1.14–1.83)*	1.49 (1.18–1.88)*	1.50 (1.19–1.90)*	1.50 (1.19–1.89)*	1.52 (1.20–1.91)*	1.75 (1.36–2.28)*	1.77 (1.36–2.29)*	1.70 (1.31–2.22)*	1.72 (1.32–2.24)*

*Note: *p< .05;* Adjusted ORs: ages and year levels.

Anger-out expression and depression predicted all offender behaviors. Particularly, high anger-out expression was a strong risk factor for 'having pushed or shoved' behaviors, with 2.04 (adjusted ORs). An approximate 40% of students with high control-in expression were less likely to 'hit or injure someone with weapons'.

Table 14. Relation of negative emotion scales to odds ratios of direct victim behaviors by dividing clusters of colleges (fixed effect) and departments in the colleges (random effect).

Anger Scales	Odds Ratio of direct victim behaviors (95% CI)											
	Being hit		Being pushed		Being yelled at		Being threatened		Being injured with weapons		Asking to fight	
	Reference: each anger item below the 75th percentile											
	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs
Control-Out	1.06 (0.74–1.51)	1.06 (0.74–1.51)	0.91 (0.64–1.30)	0.93 (0.65–1.33)	1.04 (0.73–1.48)	1.04 (0.73–1.49)	1.15 (0.78–1.67)	1.13 (0.77–1.65)	1.17 (0.79–1.75)	1.15 (0.77–1.71)	1.10 (0.77–1.57)	1.09 (0.76–1.56)
Anger-Out	1.52 (1.15–2.00)*	1.55 (1.17–2.04)*	1.41 (1.07–1.86)*	1.42 (1.08–1.87)*	1.39 (1.05–1.84)*	1.38 (1.04–1.83)*	1.57 (1.18–2.08)*	1.57 (1.18–2.08)*	1.49 (1.11–1.99)*	1.48 (1.10–1.99)*	1.73 (1.32–2.28)*	1.73 (1.32–2.28)*
Control-In	0.88 (0.63–1.24)	0.89 (0.64–1.25)	0.84 (0.60–1.17)	0.84 (0.60–1.17)	1.25 (0.89–1.75)	1.24 (0.89–1.74)	0.60 (0.41–0.86)*	0.59 (0.41–0.86)*	0.61 (0.41–0.89)*	0.60 (0.41–0.89)*	0.67 (0.47–0.94)*	0.68 (0.48–0.95)*
Anger-In	1.12 (0.83–1.50)	1.14 (0.85–1.54)	1.49 (1.11–1.99)*	1.50 (1.12–2.02)*	1.25 (0.93–1.68)	1.23 (0.91–1.66)	1.53 (1.13–2.08)*	1.57 (1.15–2.14)*	1.47 (1.07–2.03)*	1.47 (1.06–2.03)*	1.27 (0.95–1.71)	1.28 (0.95–1.72)
Depression	1.73 (1.37–2.19)*	1.74 (1.38–2.20)*	1.73 (1.37–2.19)*	1.73 (1.37–2.18)*	1.63 (1.28–2.06)*	1.63 (1.28–2.06)*	2.10 (1.65–2.66)*	2.10 (1.66–2.67)*	2.38 (1.86–3.05)*	2.36 (1.84–3.02)*	1.95 (1.54–2.45)*	1.94 (1.54–2.45)*

*Note: *p< .05;* Adjusted ORs: ages and year levels.

Anger-out expression related to ORs of all victimizations, ranging from 1.38 to 1.73 (adjusted ORs). Similarly, depression was a strong risk factor for all victimizations (direct). Additionally, approximately 50% of students with high anger-in were more likely to be victimized than students with normal anger emotions, including being pushed, threatened, and injured with weapons.

Table 15. Relation of negative emotion scales to odds ratios of indirect victim behaviors by dividing clusters of colleges (fixed effect) and departments in the colleges (random effect).

Anger Scales	Odds Ratio of indirect victim behaviors									
	Friend won't like you unless you do what they want		Spreading a false rumor		Being left out on purpose		Trying to keep others from liking you		Telling lies about you	
	Reference: each anger item below the 75th percentile									
	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs
Control-Out	0.78 (0.55–1.12)	0.78 (0.54–1.12)	1.09 (0.76–1.55)	1.08 (0.76–1.55)	0.96 (0.66–1.40)	0.96 (0.66–1.40)	1.12 (0.76–1.65)	1.13 (0.77–1.67)	0.99 (0.68–1.42)	0.97 (0.68–1.41)
Anger–Out	1.61 (1.23–2.12)*	1.62 (1.23–2.13)*	1.60 (1.22–2.11)*	1.61 (1.22–2.11)*	1.43 (1.08–1.90)*	1.43 (1.08–1.89)*	1.45 (1.09–1.93)*	1.45 (1.09–1.93)*	1.51 (1.14–1.99)*	1.52 (1.15–2.01)*
Control-In	0.90 (0.64–1.26)	0.91 (0.65–1.28)	0.68 (0.49–0.96)*	0.70 (0.50–0.98)*	0.65 (0.45–0.93)*	0.67 (0.46–0.96)*	0.58 (0.40–0.85)*	0.60 (0.41–0.87)*	0.79 (0.56–1.12)	0.79 (0.56–1.12)
Anger-In	1.31 (0.97–1.76)	1.32 (0.98–1.78)	1.28 (0.95–1.72)	1.28 (0.95–1.72)	1.71 (1.26–2.33)*	1.70 (1.25–2.22)*	1.80 (1.32–2.45)*	1.78 (1.31–2.43)*	1.34 (0.99–1.81)	1.34 (0.99–1.81)
Depression	1.73 (1.37–2.18)*	1.71 (1.35–2.15)*	1.70 (1.35–2.15)*	1.69 (1.34–2.13)*	2.90 (2.29–3.69)*	2.89 (2.27–3.67)*	2.75 (2.16–3.50)*	2.74 (2.15–3.49)*	2.11 (1.67–2.67)*	2.12 (1.68–2.68)*

Note: *p< .05; Adjusted ORs: ages and year levels.

Students with high anger-out expression were more likely to be victimized (indirect), ranging from 38% to 55%. Similarly, depression was shown as a high risk factor for all victimizations. Approximately 30% of students with high anger-in expression were more likely to be 'left out on purpose', and 'kept others from liking them'. On the other hand, high control-in emotion was a protective factor for almost victimizations, except for 'telling lies' and 'doing what friends want in order to maintain friendships'.

Table 16. Relation of negative emotion scales to odds ratios of witness behaviors by dividing clusters of colleges (fixed effect) and departments in the colleges (random effect).

Anger Scales	Odds Ratio of witness behaviors (95% CI)									
	Seeing hit		Seeing pushed		Seeing yelled at		Seeing chased		Seeing threatened with weapons	
	Reference: each anger item below the 75th percentile									
	Adjusted ORs	Crude ORs	Adjusted ORs	Crude ORs	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs	Crude ORs	Adjusted ORs
Control-Out	0.76 (0.53–1.08)	0.75 (0.53–1.07)	0.92 (0.65–1.30)	0.91 (0.64–1.29)	0.93 (0.65–1.33)	0.92 (0.64–1.32)	0.89 (0.61–1.28)	0.87 (0.60–1.26)	0.83 (0.57–1.19)	0.81 (0.56–1.17)
Anger-Out	1.05 (0.79–1.38)	1.07 (0.81–1.42)	1.29 (0.98–1.70)	1.31 (0.99–1.73)	1.29 (0.98–1.71)	1.32 (0.99–1.74)	1.63 (1.23–2.16)*	1.66 (1.25–2.20)*	1.50 (1.13–1.98)*	1.54 (1.16–2.004)*
Control-In	1.10 (0.79–1.54)	1.11 (0.79–1.56)	0.93 (0.67–1.29)	0.93 (0.67–1.29)	0.70 (0.50–0.98)*	0.70 (0.50–0.97)*	0.77 (0.54–1.09)	0.76 (0.54–1.08)	1.02 (0.72–1.44)	0.99 (0.70–1.41)
Anger-In	1.00 (0.74–1.34)	1.01 (0.75–1.37)	1.06 (0.79–1.41)	1.06 (0.79–1.42)	1.24 (0.92–1.67)	1.26 (0.94–1.70)	1.31 (0.96–1.77)	1.33 (0.68–2.76)	1.09 (0.81–1.48)	1.10 (0.81–1.49)
Depression	1.50 (1.18–1.90)*	1.50 (1.18–1.91)*	1.40 (1.11–1.76)*	1.40 (1.11–1.77)*	1.76 (1.39–2.22)*	1.77 (1.40–2.23)*	1.86 (1.47–2.35)*	1.87 (1.47–2.36)*	1.79 (1.41–2.26)*	1.79 (1.41–2.26)*

*Note: *p< .05; Adjusted ORs: ages and year levels.*

High levels of anger-out expression increased the risk of 'seeing someone being chased' and seeing someone being 'threatened with weapons', with adjusted ORs of 1.66 and 1.54 respectively. A total of 30% of students with high control-in levels were less likely to have seen 'yelling at'. Depression was strongly related to all witness behaviors, ranging from 21% to 50%.

Table 17. Relation of behaviors to odds ratios of depression by dividing clusters of colleges (fixed effect) and departments in the colleges (random effect).

	Odds ratio of depression (95% CI)	
	Crude ORs	Adjusted ORs (Ages &Year levels)
Reference : Each of behavioral item with less than the 75th percentile		
Violent Behaviors		
• Involved in a gang fight	1.15(0.87–1.52)	1.15(0.87–1.52)
• Using weapons to get money or things	1.52(0.99–2.34)	1.52(0.99–2.34)
• Attacked someone with weapons	1.05(0.74–1.47)	1.05(0.74–1.47)
• Tried to have sexual relations with someone	1.35(0.90–2.02)	1.35(0.90–2.02)
Offender Behaviors		
• Had hit	1.01(0.74–1.38)	1.02(0.74–1.39)
• Had pushed or shoved	1.08(0.77–1.52)	1.09(0.77–1.53)
• Had yelled	1.7(0.86–1.59)	1.18(0.87–1.60)
• Had threatened with weapons	1.33(0.93–1.92)	1.33(0.92–1.92)
• Had injured someone with weapons	1.21(0.83–1.76)	1.22(0.83–1.77)
Direct victim behaviors		
• Had been hit	1.03(0.74–1.43)	1.04(0.75–1.45)
• Had been pushed	1.01(0.71–1.43)	0.99(0.70–1.40)
• Had been yelled	1.00(0.74–1.37)	1.01(0.74–1.38)
• Had been threatened to hit	1.27(0.90–1.78)	1.29(0.92–1.81)
• Had been threatened with weapons	1.71(1.24–2.38)*	1.69(1.22–2.35)*
• Had been asked to fight	1.27(0.91–1.78)	1.27(0.91–1.77)
Indirect victim behaviors		
• Friends won't like you unless you do what they want	1.03(0.78–1.36)	1.01(0.77–1.34)
• Spread a false rumor	0.86(0.64–1.16)	0.86(0.63–1.15)
• Been left out on purpose	2.18(1.59–2.99)*	2.17(1.59–2.98)*
• Kept others from liking	1.88(1.37–2.57)*	1.87(1.37–2.55)*
• Told lies about you	1.05(0.76–1.45)	1.07(0.77–1.47)

*Note: *p< .05*

| | Odds ratio of depression (95% CI) | |
	Crude ORs	Adjusted ORs (Ages &Year levels)
Reference : Each of behavioral item with less than the 75th percentile		
Witness behaviors		
• Had seen hit	1.12(0.79–1.60)	1.11(0.78–1.59)
• Had seen pushed	0.78(0.53–1.13)	0.78(0.54–1.13)
• Had seen yelled	1.33(0.95–1.87)	1.33(0.95–1.88)
• Had seen chased	1.43(1.01–2.04)*	1.45(1.02–2.05)*
• Had seen threatened with weapons	1.25(0.89–1.76)	1.24(0.88–2.00)

*Note: *p< .05*

Overall, 31% of students who had been threatened with weapons were more likely to have depression. Being left out on purpose was strongly related to depression (adjusted OR=2.17), followed by keeping others from liking them (adjusted OR=1.87), and 45% of students who saw someone being chased by gangs or an individual were more likely to have depression.

Risk and Protective Factors

Table 18. Relation of CTC-Youth Survey (school domain) to odds ratios of violent behaviors.

School Domain	Odds Ratios (95% CI) of violent behaviors			
	Involved in a gang fight	**Used a weapon to get money**	**Attacked someone with weapons**	**Forced someone to have sex**
Reference: item below the 25th percentile				
Commitment to school				
• Low	0.80(0.60–1.08)	0.78(0.52–1.18)	0.83(0.61–1.15)	0.70(0.47–1.06)
• Moderate	0.80(0.60–1.06)	0.74(0.49–1.12)	0.70(0.51–0.96)*	0.65(0.43–0.98)*
• High	0.55(0.41–0.73)*	0.55(0.37–0.83)*	0.54(0.39–0.75)*	0.57(0.38–0.86)*
School Opportunity for Prosocial Involvement				
• Mild	0.80(0.60–1.07)	0.78(0.52–1.18)	0.83(0.61–1.15)	0.70(0.46–1.06)
• Moderate	0.80(0.60–1.06)	0.74(0.49–1.12)	0.70(0.51–0.96)*	0.65(0.43–0.98)*
• High	0.55(0.41–0.73)*	0.55(0.36–0.83)*	0.54(0.39–0.75)*	0.57(0.38–0.86)*
School Rewards for Prosocial Involvement				
• Mild	0.95(0.71–1.26)	0.64(0.43–0.94)*	0.68(0.50–0.93)*	0.72(0.48–1.08)
• Moderate	0.71(0.52–0.97)*	0.48(0.30–0.75)*	0.53(0.37–0.74)*	0.57(0.36–0.90)*
• High	0.65(0.49–0.86)*	0.47(0.32–0.70)*	0.54(0.39–0.73)*	0.62(0.42–0.92)*

*Note: *p< .05*

Regarding the school domain, only high commitment to school was shown to be protective against all violent behaviors. However, moderate commitment to school was a protective factor for 'attacked someone with weapons' and 'forced someone to have sex'. Approximately 40% of students with moderate to high commitment to school were less likely to engage in violent behaviors. Additionally, having a high level of opportunity for prosocial involvement at school was a protective factor for all violent behaviors. In addition, students who had moderate to high levels of opportunity for prosocial involvement at school were less likely to attack someone with weapons or to force someone to have sex. Having school rewards for prosocial involvement at any level was protective against using a weapon to get money and attacking someone with weapons. In

addition, students with moderate to high levels of school rewards were less likely to be

involved in a gang fight or to force someone to have sex.

Table 19. Relation of CTC-Youth Survey (Peer–Individual domain) to odds ratios of violent behaviors.

Peer and individual Items	Odds Ratios (95% CI) of violent behaviors			
	Involved in a gang fight	Used a weapon to get money	Attacked someone with weapons	Forced someone to have sex

Reference : item below the 25th percentile

Friends' use of drugs

• Few	1.21(0.87–1.68)	0.89(0.55–1.45)	1.30(0.89–1.89)	1.06(0.65–1.73)
• Many	1.35(0.97–1.86)	0.86(0.53–1.40)	1.15(0.79–1.67)	1.03(0.63–1.68)
• A lot	1.77(1.26–2.49)*	1.40(0.87–2.25)	2.12(1.45–3.08)*	1.58(0.97–2.57)

Friends' delinquent behavior

• Few	1.85(1.34–2.56)*	1.24(0.75–2.04)	1.77(1.23–2.55)*	1.69(1.05–2.72)*
• Many	1.76(1.37–2.28)*	1.02(0.67–1.54)	1.56(1.17–2.11)*	1.70(1.16–2.48)*
• A lot	2.54(1.94–3.31)*	2.49(1.75–3.54)*	3.32(2.50–4.42)*	2.19(1.50–3.19)*

Peer rewards for antisocial behavior

• Few peers	1.31(0.98–1.76)	0.79(0.46–1.34)	1.35(0.95–1.91)	0.90(0.60–1.63)
• Many peers	1.95(1.50–2.54)*	1.46(0.97–2.20)	1.90(1.41–2.57)*	1.77(1.19–2.62)*
• Lots of peers	2.54(1.95–3.29)*	2.89(2.02–4.13)*	2.95(2.21–3.93)*	2.72(1.89–3.92)*

Initial drug use

• Few occasions	1.89(1.40–2.54)*	1.70(1.09–2.65)*	2.41(1.69–3.43)*	1.39(0.89–2.16)
• Many occasions	2.16(1.64–2.85)*	1.37(0.89–2.10)	2.49(1.79–3.48)*	1.31(0.87–1.99)*
• Lots of occasions	2.88(2.15–3.83)*	1.93(1.26–2.95)*	2.99(2.12–4.20)*	1.78(1.18–2.70)*

Rebellious

• Little	1.50(1.16–1.94)*	1.15(0.78–1.70)	1.29(0.96–1.75)	0.94(0.65–1.35)
• Moderate	1.95(1.41–2.67)*	1.08(0.66–1.77)	1.70(1.18–2.44)*	0.76(0.47–1.24)
• Very	1.94(1.41–2.68)*	1.51(0.95–2.39)	2.11(1.48–3.01)*	0.84(0.52–1.36)

Sensation seeking

• Low	1.23(0.92–1.65)	0.60(0.36–1.01)	1.12(0.79–1.59)	0.38(0.21–0.67)
• Moderate	1.71(1.34–2.20)	1.19(0.83–1.72)	1.52(1.14–2.02)	1.11(0.78–1.59)
• High	2.35(1.77–3.13)	1.60(1.08–2.37)	2.40(1.75–3.27)	1.49(1.02–2.20)

*Note: *p< .05*

Regarding peer and individual domains, having 'lots of friends using drugs' was a high risk factor for involvement in a gang fight and attacking someone with weapon, with ORs of 1.77 and 2.14 respectively. The ORs were substantially increased moving from having 'a few friends' to 'having lots of friends' using drugs. The number of delinquent friends (from few to a lot of friends) was a risk factor for 'being involved in a gang fight', 'attacking someone with weapons' and 'forcing someone to have sex'. However, those with 'lots of delinquent friends' were 2.5 times more likely to use a weapon to get money or things. The number of peer rewards for antisocial behavior (ranging from 'many' to 'lots') increased the risk for being involving in a gang fight, attacking someone with weapons, and forcing someone to have sex. Those who reported 'lots of peer rewards for antisocial behavior' were nearly three times more likely to use a weapon to get money or things. Drug use was shown to be a risk factor for involvement in gang fights and attacking someone with weapons (ORs of approximately 3 for 'lots of occasions'). Similarly, using drugs was related to high ORs of forcing someone to have sex. All levels of rebellious behaviors were shown to be associated with the risk of involvement in a gang fight, with ORs of 1.50 to 1.94. Sensation seeking did not influence violent behaviors.

Table 20. Relation of CTC-Youth Survey (Peer–Individual domain) to odds ratios of violent behaviors.

Peer and individual Items	Odds Ratios (95% CI) of violent behaviors			
	Involved in a gang fight	**Used a weapon to get money**	**Attacked someone with weapons**	**Forced someone to have sex**

Reference: item below the 25th percentile

Favorable attitude toward antisocial behavior

• Low	1.61(1.28–2.04)*	1.26(0.87–1.81)	1.49(1.13–1.97)*	1.21(0.85–1.73)
• Moderate	2.10(1.63–2.70)*	1.96(1.36–2.84)*	2.50(1.88–3.32)*	1.73(1.20–2.50)*
• High[2]	-	-	-	-

Favorable attitude toward drug use

• Low	1.39(1.09–1.79)*	0.89(0.60–1.33)	1.12(0.84–1.50)	1.12(0.76–1.64)
• Moderate	2.01(1.60–2.53)*	1.51(1.09–2.09)	1.82(1.41–2.34)	1.53(1.10–2.12)
• High[2]	-	-	-	-

Perceived risk of drug use

• Low	2.63(1.99–3.49)*	1.94(1.33–2.83)*	2.21(1.63–3.00)*	1.49(1.03–2.16)
• Moderate	1.61(1.25–2.09)*	0.80(0.54–1.19)	1.33(0.99–1.78)	0.73(0.49–1.07)
• High	1.01(0.74–1.39)	0.58(0.34–0.99)*	0.66(0.44–0.98)*	0.50(0.29–0.85)

Belief in moral order

• Low	1.09(0.81–1.48)	0.97(0.62–1.51)	1.21(0.88–1.69)	1.79(1.15–2.80)*
• Moderate	0.95(0.72–1.26)	0.91(0.60–1.38)	0.91(0.67–1.25)	1.34(0.87–2.08)
• High	0.60(0.45–0.79)	0.82(0.55–1.24)	0.62(0.45–0.85)	0.99(0.63–1.54)

Social skills

• Low	0.99(0.76–1.30)	0.63(0.40–0.97)	0.89(0.66–1.21)	0.91(0.61–1.37)
• Moderate	0.97(0.74–1.28)	0.89(0.60–1.33)	0.82(0.61–1.12)	1.04(0.70–1.54)
• High	0.67(0.51–0.86)	0.78(0.53–1.14)	0.59(0.43–0.79)	0.63(0.42–0.95)

Interaction with prosocial peers

• Few	1.47(1.12–1.92)	0.95(0.66–1.37)	1.18(0.88–1.59)	0.81(0.56–1.17)
• Many	1.25(0.95–1.65)	0.44(0.29–0.69)*	0.79(0.58–1.09)	0.51(0.34–0.77)*
• A lots	1.06(0.79–1.40)	0.60(0.39–0.92)*	0.89(0.64–1.23)	0.47(0.30–0.73)

*Note: *p< .05*

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[2] The number of participants (2 and 2) was too low for analysis.

Students with favorable attitudes toward antisocial behavior were more likely to engage in violent behaviors. The students with low to moderately favorable attitudes to antisocial behavior were almost 2.5 times more likely to be involved in a gang fight and attack someone with weapons. Students with moderately favorable attitudes toward antisocial behavior were more likely to use a weapon to get money or things and to force someone to have sex, with ORs of 1.96 and 1.73, respectively. Additionally, students who had low or moderately favorable attitudes toward drug use were more likely to be involved in a gang fight, with ORs of 1.39 and 2.01, respectively. The number of participants with highly favorable attitude levels was too small for analysis. Students who had low perceived risk of drug use were shown to be at high risk of being involved in a gang fight (OR=2.63), using a weapon to get money or things (OR=1.94), and attacking someone with weapons (OR=2.21). Approximately 40% of students with a high perceived risk of drug use were less likely to use a weapon to get money or attack someone with weapons.

Table 21. Relation of CTC-Youth Survey (Community domain) to odds ratios of violent behaviors.

Community domain	Odds Ratios (95% CI) of violent behaviors			
	Involved in a gang fight	Used a weapon to get money	Attacked someone with weapons	Forced someone to have sex

Reference: item below the 25th percentile

Perceived availability of drugs

• Low	2.03(1.48–2.78)*	0.93(0.58–1.49)	1.31(0.91–1.88)	1.31(0.81–2.11)
• Moderate	2.46(1.83–3.32)*	1.09(0.71–1.68)	1.71(1.21–2.40)*	1.50(0.95–2.36)
• High	2.41(1.78–3.26)*	1.40(0.92–2.14)	1.88(1.33–2.64)*	1.73(1.10–2.72)

Law and norms favorable to drug use

• Few	0.80(0.61–1.04)	0.83(0.56–1.24)	1.04(0.77–1.41)	0.77(0.51–1.16)
• Many	1.35(1.04–1.75)*	1.09(0.74–1.60)	1.49(1.11–1.99)*	1.19(0.82–1.74)
• A lot	0.84(0.63–1.11)	0.89(0.58–1.36)	0.96(0.69–1.34)	0.94(0.61–1.44)

Neighborhood attachment

• Low	0.80(0.60–1.08)	1.03(0.65–1.65)	0.90(0.65–1.26)	1.06(0.68–1.66)
• Moderate	0.74(0.54–1.01)	0.94(0.57–1.55)	0.95(0.66–1.35)	0.61(0.36–1.04)
• High	0.65(0.48–0.88)	1.51(0.96–2.39)	0.93(0.66–1.31)	1.53(0.98–2.38)

Community disorganization

• Low	1.18(0.89–1.55)	0.96(0.62–1.49)	1.14(0.82–1.59)	0.97(0.64–1.48)
• Moderate	1.98(1.52–2.58)*	1.44(0.98–2.14)	2.18(1.62–2.94)*	1.29(0.88–1.90)
• High	2.55(1.94–3.34)*	1.59(1.08–2.35)*	2.43(1.80–3.28)*	1.27(0.86–1.89)

Transitions and mobility

• Low	1.23 (0.92–1.65)	0.76(0.49–1.19)	0.83(0.60–1.17)	1.07(0.69–1.65)
• Moderate	1.25(0.99–1.59)	0.78(0.55–1.10)	0.96(0.74–1.26)	1.10(0.78–1.55)
• High	1.07(0.79–1.46)	0.62(0.38–1.00)	0.77(0.54–1.10)	0.77(0.47–1.26)

Community rewards for prosocial involvement

• Low	1.11(0.84–1.47)	0.88(0.56–1.38)	1.10(0.80–1.51)	0.83(0.54–1.29)
• Moderate	0.96(0.70–1.31)	1.08(0.66–1.77)	0.85(0.58–1.24)	0.84(0.51–1.39)
• High	0.86(0.66–1.12)	1.46(0.99–2.16)	1.20(0.90–1.61)	1.36(0.94–1.99)

Community opportunities for prosocial involvement

• Low	1.36(1.05–1.77)	0.91(0.62–1.33)	1.03(0.77–1.38)	0.89(0.60–1.31)
• Moderate	1.09(0.83–1.44)	0.83(0.55–1.26)	0.98(0.72–1.34)	0.90(0.62–1.40)
• High	1.13(0.86–1.49)	0.87(0.58–1.32)	1.07(0.78–1.45)	1.00(0.67–1.50)

*Note: *p< .05*

Students who perceived that drugs were available at any level (low to high) were 2 to 2.5 times more likely to be involved in a gang fight. Similarly, having moderate to high levels of perceived availability of drugs was associated with attacking someone with weapons. Nearly 90% of students who perceived drugs were highly available in the community were more likely to attack someone with weapons. Overall 35% of students, but 49% of students who lived in communities with many laws and norms that favored drug use, were more likely to use a weapon to get money, and attack someone with weapons respectively. Neighborhood attachment was thus identified as a protective factor against involvement in a gang fight and attacking someone with weapons. Moderate to high levels of community disorganization influenced involvement in a gang fight and attacking someone with weapons, with ORs of 1.98–2.55 and 2.18–2.43 respectively. Additionally, students living in areas with high levels of community disorganization were 59% more likely to use a weapon to get money or things.

Table 22. Relation of CTC-Youth Survey (Family domain) to odds ratios of violent behaviors.

Family domain	Odds Ratios (95% CI) of violent behaviors			
	Involved in a gang fight	Used a weapon to get money	Attacked someone with weapons	Force someone to have sex
Reference: item below the 25th percentile				
Family history of antisocial behavior				
• Little	1.57(1.20–2.07)*	1.01(0.65–1.56)	1.21(0.87–1.67)	1.06(0.69–1.63)
• Moderate	2.43(1.78–3.31)*	1.75(1.11–2.75)*	1.99(1.41–2.82)*	1.49(0.93–2.36)
• High	3.46(2.60–4.60)*	2.09(1.39–3.14)*	2.72(1.99–3.72)*	2.20(1.46–3.29)*
Parental attitude favorable toward drug use				
• Low	1.91(1.51–2.43)*	1.16(0.80–1.67)*	1.55(1.18–2.03)*	0.93(0.64–1.33)
• Moderate	1.91(1.50–2.43)*	1.81(1.28–2.55)*	2.33(1.79–3.04)*	1.42(1.01–1.99)
• High	-	-	-	-
Parental attitude favorable toward antisocial behavior				
• Little	1.66(1.32–2.10)*	1.15(0.80–1.67)	1.55(1.18–2.03)*	0.93(0.64–1.33)
• Moderate	1.87(1.47–2.38)*	1.81(1.28–2.55)*	2.33(1.78–3.04)*	1.42(1.01–1.99)*
• High	-	-	-	-
Family management				
• Low	1.53(1.17–2.01)	0.98(0.67–1.44)	1.43(1.05–1.93)	1.25(0.85–1.84)
• Moderate	1.74(1.31–2.32)	0.66(0.42–1.04)	1.30(0.93–1.80)	0.97(0.63–1.50)
• High	1.54(1.17–2.02)	0.93(0.62–1.38)	1.15(0.84–1.58)	0.93(0.61–1.41)
Family conflict				
• Little	1.32(1.02–1.70)*	1.43(0.95–2.16)	1.53(1.14–2.07)*	1.13(0.76–1.67)
• Moderate	1.09(0.81–1.48)	1.42(0.88–2.30)	1.26(0.88–1.79)	1.21(0.77–1.92)
• High	1.58(1.19–2.09)*	2.22(1.45–3.38)*	1.77(1.28–2.44)*	1.60(1.06–2.42)*
Family reward for prosocial involvement				
• Little	1.23(0.95–1.60)	0.71(0.48–1.04)	0.99(0.74–1.32)	0.72(0.49–1.06)
• Moderate	1.28(0.98–1.68)	0.81(0.55–1.20)	0.84(0.62–1.14)	0.73(0.49–1.08)
• High	0.81(0.60–1.08)	0.53(0.34–0.84)*	0.66(0.47–0.92)*	0.57(0.37–0.88)
Family attachment				
• Low	1.29(1.01–1.65)*	0.62(0.43–0.89)	0.94(0.72–1.24)	0.72(0.50–1.02)
• Moderate	0.97(0.73–1.28)	0.47(0.30–0.74)	0.62(0.45–0.87)	0.51(0.33–0.79)
• High	0.88(0.65–1.18)	0.63(0.41–0.97)	0.66(0.47–0.93)	0.57(0.36–0.89)
Family opportunity for prosocial involvement				
• Little	1.41(1.08–1.85)*	0.78(0.54–1.15)	0.94(0.70–1.26)	0.76(0.52–1.11)
• Moderate	1.11(0.86–1.43)	0.57(0.39–0.84)	0.78(0.59–1.05)	0.62(0.42–0.89)*
• High	0.92(0.68–1.23)	0.46(0.29–0.75)	0.50(0.35–0.72)	0.34(0.20–0.58)*

*Note: *p< .05*

A family history of antisocial behavior was shown to be associated with involvement in a gang fight at every level, with ORs of 1.57–3.46. Similarly 'moderate' and 'high' family histories of antisocial behavior were associated with using a weapon to get money and attacking someone with weapons. A high family history of antisocial behavior was associated with forcing someone to have sex (adjusted OR=2.20). Parental attitudes that were favorable toward drug use were associated with all violent behaviors, except for forcing someone to have sex. The highest OR of 2.33 was for attacking someone with weapons. Having parents with low to moderate attitudes toward antisocial behavior was shown to be associated with involvement in a gang fight (ORs 1.66–1.87), and attacking someone with weapons (ORs 1.55–2.03). Parental attitudes highly favorable to antisocial behavior were associated with using a weapon to get money or things and forcing someone to have sex, with 81% and 42% respectively.

Family management was associated with involvement in a gang fight and attacking someone with weapons, although the risk was reduced when high family management was taken into account. High levels of family conflict were associated with all violent behaviors, particularly using a weapon to get money or things (OR=2.22). Even where there were low levels of family conflict, it was still associated with violent behaviors (involvement in a gang fight, attacking someone with weapons). High levels of family rewards for prosocial involvement was associated with less use of a weapon to get money (OR=0.53), and attacking someone with weapons (OR=0.66). The ORs of violent behavior declined when the levels of family rewards for prosocial involvement were higher. Higher levels of family attachment were associated with more frequent violent behavior. Students with poor family attachment were 29% more likely to be involved in a

gang fight. When family opportunity for prosocial involvement was low, ORs were high only for involvement in a gang fight. The ORs gradually declined as family opportunity for prosocial involvement increased, with moderate and high levels of family opportunity for prosocial involvement shown to be protective factors against forcing someone to have sex.

In sum, there were more instances and types of violent behavior in Bangkok than Khorat province. The behavior with the highest prevalence rate was a gang fight, with approximately 42% (frequency 1–5 times in the past 6 months). Additionally, the prevalence rate of sexual assault was almost 10% for youth in both Bangkok and Khorat provinces. There was a statistically significant difference between Bangkok and Khorat province for nearly all violent behaviors. Similarly, higher prevalence rates for victimization (direct and indirect) and negative emotions (anger and depression) were found in Bangkok than Khorat province. However, the witness behaviors of 'seeing someone hit' and 'seeing someone pushed' were higher in Khorat than Bangkok.

With regard to anger expression related to violent behaviors, students with high anger-out were more likely to be involved in most violent behaviors, more likely to be victimized, and they were also at a higher risk of witnessing violence. On the other hand, high anger-in expression and control-in were more likely to be protective factors for violent behaviors and violence classification (direct and indirect victims and witnessing). Interestingly, depression was strongly associated with all kinds of violent behaviors and violence classification.

Regarding protective and risk factors, high scores on the school domain were protective against violent behaviors. On the other hand, peer and individual domains

related to drug involvement or rebellious behaviors were associated with violent behaviors. Additionally, most family domains were shown to be associated with violent behaviors. Unfortunately, the role of the community domain as protective against violent behaviors could not be clarified.

Chapter 8

Intervention Results

8.1.   Quantitative Results

The two intervention programs, Mindfulness Meditation and an adapted version of ART (Aggression Replacement Training), were implemented in one college at Bangkok. The data is reported in terms of Means$\pm$S.D., and a two-way repeated measures ANOVA was used to compare between control and intervention groups over time (pre-intervention, one and three months follow-up) on the dependent variables of self-reported violent behavior, violence classifications, negative emotions (anger and depression). Independent *t* tests in paired comparisons were used to examine group differences using Bonferroni corrections to control the Type I error rate from multiple significance tests. The study compared nine multiple *t-test* resulting from carried out three groups (Control, MM, and ART) and at three across time periods (pre-, 1 month post- and 3 month post-intervention). Thus, the adjusted significance level was $p<0.005$ (0.05/9). In addition, qualitative data collected from interviews at one month and three months post-intervention were reported for participants in both of the intervention trials.

Table 23. Comparison of violent behaviors between control and intervention groups during pre–post follow-up by 2-way ANOVA.

Violent Behaviors	Means ± S.D.										df	Mean Square	F	p value
	Control–Pre test	Control–Post 1 Mo	Control–Post 3 Mo	MM–Pre test	MM–Post 1 Mo	MM–Post 3 Mo	ART–Pre test	ART–Post1 Mo	ART–Post 3 Mo					
Involved in a gang fight	0.33±1.01	0.62±1.02	0.31±0.55	0.52±0.59	0.37±0.72	0.68±1.02	0.60±0.78	0.91±1.27	0.56±0.84	Group	2	0.38	0.28	.755
										Time	2	1.04	1.10	.342
										Group *Time	4	1.40	1.70	.156
Used weapons to get something	0.00	0.22±0.69	0.06±0.25	0.02±0.15	0.41±1.08	0.31±0.82	0.21±0.59	0.00	0.17±0.49	Group	2	0.38	0.86	.429
										Time	2	0.93	2.23	.119
										Group *Time	4	0.93	2.27	.067
Attacked someone with weapons	0.14±0.44	0.35±0.81	0.06±0.25	0.57±1.17	0.37±0.67	0.65±1.06	0.30±0.55	0.60±1.11	0.26±0.54	Group	2	1.92	3.16	.052
										Time	2	0.71	1.06	.352
										Group *Time	4	0.74	0.97	.428
Forced someone to have sex	0.00	0.50±1.32	0.04±0.29	0.02±0.15	0.17±0.46	0.25±0.71	0.08±0.28	0.00	0.13±0.45	Group	2	1.10	2.00	.146
										Time	2	1.77	3.50	.039*
										Group *Time	4	2.00	3.93	.006*

Note: *p<.05

The mean number of reports for being involved in a gang fight was 0.33 for the control group at pre-intervention, but was higher (0.62) one month post-intervention before returning to a similar rate at three months post-intervention. In contrast, mean scores on the same item for the MM group fell from 0.52 to 0.37 between pre-intervention and one month post-intervention, but changes were not sustained at three

months post-intervention. For the ART group, mean scores rose at one month post-intervention. The analysis showed that these differences were not statistically significant across groups or over time, nor was the interaction between group membership and time of assessment significant. The Bonferroni correction showed similar outcomes to ANOVA test. As such, it cannot be concluded that the interventions led to any significant reductions in involvement in gang fighting, at least as can be assessed by this self-report item. The interaction effects for the dependent variables 'used weapons to get something' approached significance, and was significant for 'forced someone to have sex'; however the rates of both of these behaviors at pre-intervention were very low for all groups.

Table 24. Paired comparisons of between-group differences over time for violent behaviors.

Violent Behaviors	Control–MM												Control–ART											
	Pre-intervention				1 Mo post-intervention				3 Mo post-intervention				Pre-intervention				1 Mo post-intervention				3 Mo post-intervention			
	df	Mean Diff.	t	Sig	df	Mean Diff	t	Sig	df	Mean Diff.	t	Sig	df	Mean Diff.	t	Sig	df	Mean diff.	t	Sig	Mean Diff.	df	t	Sig
Involved in a gang fight	94	–0.18	–1.03	.303	75	0.24	1.13	.262	75	–0.37	–2.06	.042*	77	–0.26	–1.14	.258	69	–0.28	–1.02	.310	–0.25	66	–1.48	.142
Using weapons to get money	94	–0.02	–1.18	.239	75	–0.18	–0.91	.364	75	–0.24	–1.89	.062	77	–0.26	–2.73	.008*	69	0.22	1.58	.118	–0.10	66	–1.19	.237
Attacking someone with weapons	94	–0.43	–2.51	.014*	75	–0.02	–0.14	.889	75	–0.58	–3.58	.001*	77	–0.16	–1.35	.178	69	0.09	0.50	.619	–0.19	66	–2.02	.047*
Forcing someone to have sex	94	–0.02	–1.18	.239	75	0.32	1.28	.203	75	0.11	–1.72	.089	77	–0.08	–2.28	.025*	69	0.36	1.30	.198	–0.08	66	–0.93	.354

*Note: *p<.05*

When comparing control and MM groups, the findings showed that the mean for 'attacking someone with weapons' was significantly different at pre-intervention, while at three months post-intervention there were significant differences for 'being involved in a gang fight' and 'attacking someone with weapons'. When comparing control and ART groups, there was a significant difference at three months post-intervention for 'attacking someone with weapons'.

Table 25. Comparison of offender behaviors between control and intervention groups from pre–post to follow-up by 2-way ANOVA.

	Means ± S.D.										df	Mean Square	F	Sig
	Control–Pre test	Control–Post 1 Mo	Control–Post 3 Mo	MM–Pre test	MM–Post 1 Mo	MM–Post 3 Mo	ART–Pre test	ART–Post1 Mo	ART–Post 3 Mo					
Had hit	0.51±1.02	0.58±1.08	0.26±0.57	0.57±0.95	0.55±0.82	0.62±0.79	0.56±0.94	1.17±1.43	0.39±0.65	Group	2	0.18	0.14	.870
										Time	2	4.73	5.20	.009*
										Group *Time	4	0.92	0.81	.522
Had pushed	0.51±0.99	0.56±1.04	0.26±0.71	0.60±0.70	0.72±0.88	0.75±0.91	0.39±0.58	1.00±1.34	0.52±0.59	Group	2	0.36	0.41	.665
										Time	2	2.41	3.55	.037*
										Group *Time	4	0.38	0.33	.856
Had yelled	0.55±1.09	0.62±1.12	0.51±0.89	1.22±1.49	0.93±1.09	0.93±0.98	0.43±0.89	1.00±1.44	0.69±0.70	Group	2	3.42	2.51	.092
										Time	2	1.35	0.35	.706
										Group *Time	4	0.44	0.90	.464
Had threatened with weapons	0.21±0.77	0.54±1.12	0.13±0.50	0.27±0.67	0.37±0.94	0.50±0.87	0.17±0.38	0.52±0.94	0.26±0.54	Group	2	0.13	0.20	.817
										Time	2	4.80	3.40	.042*
										Group *Time	4	0.65	0.64	.631
Had injured with weapons	0.16±0.49	0.54±1.09	0.17±0.61	0.25±0.43	0.27±0.52	0.40±0.71	0.08±0.28	0.47±1.03	0.21±0.42	Group	2	0.64	1.13	.331
										Time	2	2.12	3.89	.028*
										Group *Time	4	0.45	0.65	.622

*Note: *p<.05*

The time effect was significant nearly all offender behaviors, but not for 'had yelled'. There were no significant group differences or interactions. Additionally, comparing offender behaviors between group and time did not provide a significant difference for the Bonferroni test .

Table 26. Paired comparisons of between-group differences over time for offender behaviors.

Offender Behaviors	Control–MM												Control–ART											
	Pre-intervention				1 Mo post-intervention				3 Mo post-intervention				Pre-intervention				1 Mo post-intervention				3 Mo post-intervention			
	df	Mean Diff.	t	Sig	df	Mean Diff	t	Sig	df	Mean Diff.	t	Sig	df	Mean Diff.	t	Sig	df	Mean diff.	t	Sig	df	Mean Diff.	t	Sig
Had hit	94	−0.05	−0.27	.783	75	0.03	0.13	.893	75	−0.35	−2.29	.025*	69	0.00	−0.01	.992	69	−0.59	−1.92	.058	66	−0.12	−0.80	.426
Had pushed or shoved	94	−0.08	−0.44	0.65	75	−0.16	−0.69	.490	75	−0.48	−2.59	.011*	69	0.21	0.90	.367	69	−0.43	−1.49	.139	66	−0.25	−1.46	.148
Had yelled	94	−0.67	−2.55	.013*	75	−0.30	−1.16	.247	75	−0.42	−1.97	.052	69	0.19	0.69	.491	69	−0.37	−1.19	.235	66	−0.18	−0.86	.392
Had threatened with weapons	94	−0.06	−0.39	.693	75	0.16	0.64	.518	75	−0.36	−2.31	.023*	69	0.07	0.41	.680	69	0.01	0.07	.942	66	−0.12	−0.96	.339
Had injured with weapons	94	−0.08	−0.91	.364	75	0.26	1.22	.224	75	−0.22	−1.50	.136	69	0.10	0.84	.400	69	0.06	0.23	.817	66	−0.03	−0.27	.782

*Note: *p<.05*

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Comparison between control and MM groups showed a significant difference between mean scores on pre-intervention for 'had yelled'. At three months post-intervention there were significant differences between groups for all behaviors except 'had yelled' and 'had injured someone with weapons'. There were no significant differences between control and ART intervention groups.

Table 27. Comparison of direct victim behaviors between control and intervention groups from pre–post to follow-up by 2-way ANOVA.

	Means + S.D.										df	Mean Square	F	Sig
	Control –Pre test	Control –Post 1 Mo	Control –Post 3Mo	MM–Pre test	MM–Post 1 Mo	MM–Post 3 Mo	ART–Pre test	ART–Post1 Mo	ART–Post 3 Mo					
Been hit	0.55+1.09	0.60+0.96	0.26+0.53	0.62+0.66	0.60+0.73	0.62+0.75	0.56+0.66	0.95+1.10	0.43+0.50	Group	2	0.01	0.01	.983
										Time	2	3.04	4.47	.017*
										Group *Time	4	0.92	1.08	.370
Been pushed	0.53+0.99	0.47+0.79	0.11+0.31	0.85+0.89	0.89+0.87	0.75+0.91	0.52+0.73	0.69+1.06	0.26+0.44	Group	2	0.32	4.91	.012*
										Time	2	2.90	4.23	.021*
										Group *Time	4	0.62	0.81	.519
Been yelled at	0.80+1.21	0.75+1.19	0.02+0.14	1.90+1.73	0.96+1.03	0.78+0.83	1.08+1.72	1.04+1.39	0.34+0.57	Group	2	5.74	3.63	.035*
										Time	2	17.01	13.99	.000*
										Group *Time	4	1.91	1.12	.348
Been threat-ened	0.25+0.69	0.39+0.86	0.75+1.22	0.37+0.54	0.50+0.69	0.93+0.99	0.26+0.44	0.52+1.08	0.47+0.66	Group	2	1.09	1.75	.186
										Time	2	0.46	0.95	.393
										Group *Time	4	0.66	1.48	.214
Been injured with weapons	0.12+0.38	0.33+0.80	0.02+0.14	0.32+0.57	0.32+0.66	0.46+0.84	0.21+0.51	0.43+0.72	0.30+0.63	Group	2	0.97	2.21	.122
										Time	2	0.36	0.84	.438
										Group *Time	4	0.17	0.48	.744
Been asked to fight	0.58+1.02	0.56+1.04	0.00	0.62+1.00	0.50+0.69	0.50+0.76	0.82+1.33	1.04+1.33	0.30+0.63	Group	2	0.32	0.25	.773
										Time	2	7.49	7.97	.001*
										Group *Time	4	1.63	1.41	.235

*Note: *p<.05*

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Victimization rates changed over time (been hit, pushed, yelled at and asked to fight), as did scores between the groups (been pushed and yelled at). However, there were no interactions between two factors. The Bonferroni correction showed significantly difference for 'being yelled at' and being 'asked to fight'.

Table 28. Paired comparisons of between-group differences over time for direct victim behaviors.

Direct victim behaviors	Control–MM																		Control–ART																	
	Pre-intervention				1 Mo post-intervention				3 Mo post-intervention				Pre-intervention				1 Mo post-intervention				3 Mo post-intervention			
	df	Mean Diff.	t	Sig	df	Mean Diff	t	Sig	df	Mean Diff.	t	Sig	df	Mean Diff.	t	Sig	df	Mean diff.	t	Sig	df	Mean Diff.	t	Sig
Been hit	94	–0.07	–0.36	.715	74	0.00	–0.01	.989	75	–0.35	–2.43	.017*	77	–0.01	–0.04	.962	69	–0.35	–1.37	.174	66	–0.16	–1.24	.219
Been pushed	94	–0.31	–1.59	.114	74	–0.41	–2.10	.039*	75	–0.63	–4.33	.000*	77	0.01	0.06	.951	69	–0.21	–0.95	.342	66	–0.14	–1.59	.116
Been yelled at	94	–1.09	–3.64	.000*	74	–0.21	–0.79	.431	75	–0.75	–6.00	.000*	77	–0.28	–0.82	.410	69	–0.29	–0.91	.362	66	–0.32	–3.60	.001*
Been threatened	94	–0.12	–0.95	.344	74	–0.10	–0.54	.590	75	–0.17	–0.67	.501	77	–0.01	–0.06	.945	69	–0.12	–0.52	.600	66	–0.38	–2.96	.004*
Been injured with weapons	94	–0.20	–2.04	.043*	74	0.01	0.06	.948	75	–0.44	–3.49	.001*	77	–0.09	–0.87	.385	69	–0.10	–0.51	.611	66	–0.28	–2.85	.006*
Been asked to fight	94	–0.03	–0.17	.865	74	0.06	0.28	.780	75	–0.50	–4.14	.000*	77	–0.23	–0.85	.397	69	–0.48	–1.65	.103	66	–0.30	–3.23	.002*

*Note: *p<.05*

Significant differences were observed for 'been pushed' between the MM and control groups at one and three months post-intervention. Means for 'been yelled at' and 'been injured with weapons' were significantly different between pre-intervention and three months follow-

up. At three months post-intervention there were also significant differences between the MM and control groups for 'been hit' and 'been asked to fight'. Between the ART and control groups there were significant differences at three months post-intervention for all items except 'been hit' and 'been pushed'.

Table 29. Comparison of indirect victim behaviors between control and intervention groups from pre–post to follow-up by 2-way ANOVA.

	Means ± S.D.										df	Mean Square	F	Sig
	Control –Pre test	Control– Post 1 Mo	Control –Post 3 Mo	MM–Pre test	MM– Post 1 Mo	MM– Post 3 Mo	ART–Pre test	ART– Post1 Mo	ART– Post 3 Mo					
Not like you until you do what they want	0.35±0.72	0.36±0.81	0.59±0.08	0.47±0.78	0.46±0.57	0.81±0.14	0.56±0.66	0.95±1.10	0.43±0.50	Group	2	0.10	0.13	.875
										Time	2	0.01	0.02	.974
										Group *Time	4	0.68	0.92	.451
Spreading a false rumor	0.41±0.68	0.51±0.95	0.44±0.06	1.00±1.15	1.10±1.13	0.81±0.14	0.52±0.73	0.69±1.06	0.26±0.44	Group	2	5.85	7.03	.002*
										Time	2	0.79	0.91	.409
										Group *Time	4	0.67	1.00	.408
Been left out on purpose	0.17±0.50	0.25±0.60	0.52±0.07	0.50±0.84	0.78±1.03	0.71±0.12	1.08±1.72	1.04±1.39	0.34±0.57	Group	2	4.56	8.37	.001*
										Time	2	0.13	0.36	.697
										Group *Time	4	0.24	0.45	.766
Kept others from liking you	0.16±0.53	0.25±0.48	0.00	0.57±1.00	0.50±0.88	0.87±0.15	0.26±0.44	0.52±1.08	0.47±0.66	Group	2	2.26	5.10	.010*
										Time	2	0.06	0.18	.830
										Group *Time	4	0.58	1.45	.222
Told lies about you	0.37±0.82	0.36±0.67	0.14±0.02	0.65±0.92	0.60±0.78	0.83±0.14	0.21±0.51	0.43±0.72	0.30±0.63	Group	2	3.15	7.31	.002*
										Time	2	0.08	0.16	.851
										Group *Time	4	0.91	1.77	.141

Note: *p<.05

Nearly all indirect victimization behaviors were shown to differ between the groups. 'Spreading a false rumor' and ' Told lie about you' were strongly significant difference by Bonferroni test, at p<.005.

Table 30. Paired comparisons of between-group differences over time for indirect victim behaviors.

Indirect victim behaviors	Control–MM																		Control–ART																	
	Pre-intervention				1 Mo post-intervention				3 Mo post-intervention				Pre-intervention				1 Mo post-intervention				3 Mo post-intervention			
	df	Mean Diff.	t	Sig	df	Mean Diff	t	Sig	df	Mean Diff.	t	Sig	df	Mean Diff.	t	Sig	df	Mean diff.	t	Sig	df	Mean Diff.	t	Sig
Not like you until you do what they want	94	–0.11	–0.75	.450	73	–0.10	–0.58	.562	75	–0.47	–2.54	.013*	77	–0.20	–1.18	.238	68	–0.59	–2.53	.014*	66	–0.12	–0.84	.399
Spreading a false rumor	94	–0.58	–3.13	.002*	73	–0.59	–2.44	.017*	75	–0.72	–5.04	.000*	77	–0.11	–0.64	.521	68	–0.18	–0.73	.465	66	–0.08	–0.73	.468
Left out on purpose	94	–0.32	–2.31	.023*	73	–0.53	–2.81	.006*	75	–0.40	–2.89	.005*	77	–0.90	–3.59	.001*	68	–0.78	–3.30	.002*	66	–0.19	–1.39	.168
Kept others from liking you	94	–0.41	–2.60	.011*	73	–0.24	–1.55	.126	75	–0.56	–4.31	.000*	77	–0.10	–0.79	.430	68	–0.26	–1.42	.159	66	–0.47	–4.85	.000*
Told lies about you	94	–0.27	–1.53	.128	73	–0.24	–1.43	.156	75	–0.60	–4.76	.000*	77	0.15	–0.85	.397	68	–0.07	–0.41	.679	66	–0.28	–2.85	.006*

*Note: *p<.05*

There were significant differences in mean scores between the control and MM groups for 'spreading a false rumor' and 'left out on purpose' at all three time points. There were significant differences in mean scores for victimization ('kept others from liking you') at pre-

intervention and 3 months post-intervention. Additionally, there were significant differences at three months post-intervention for two victimization behaviors ('not like them until doing what they want' and 'told lies about you'). When comparing the ART and control groups there were significant differences in mean scores at pre-intervention for 'left out on purpose' and at three months post-intervention for 'kept others from liking you' and 'told lies about you'.

Table 31. Comparison of witness behaviors between control and intervention groups from pre–post to follow-up by 2-way ANOVA.

	Means ± S.D.										df	Mean Square	F	Sig
	Control –Pre test	Control –Post 1 Mo	Control –Post 3 Mo	MM– Pre test	MM– Post 1 Mo	MM– Post 3 Mo	ART–Pre test	ART– Post1 Mo	ART– Post 3 Mo					
Seen friends being hit	0.21±0.56	0.55±1.09	0.28±0.58	0.87±0.64	0.62±0.72	0.71±0.58	0.47±0.66	0.73±0.96	0.56±0.84	Group	2	1.25	2.48	.095
										Time	2	2.32	3.81	.029*
										Group *Time	4	1.67	2.12	.085
Seen friends pushed	0.23±0.50	0.63±1.22	0.24±0.67	0.77±0.69	0.82±0.84	0.71±0.63	0.52±0.73	0.65±0.77	0.52±0.73	Group	2	2.26	3.51	.038*
										Time	2	2.78	3.34	.044*
										Group *Time	4	0.91	1.26	.292
Seen friends yelled at	0.16±0.45	0.55±1.17	0.28±0.66	0.50±0.59	0.68±0.96	0.62±0.79	0.34±0.64	0.52±0.59	0.47±0.66	Group	2	1.10	1.76	.183
										Time	2	2.12	2.44	.099
										Group *Time	4	0.51	0.65	.625
Seen friends chased	0.16±0.49	0.44±0.97	0.33±0.92	0.50±0.64	0.55±0.90	0.65±0.82	0.21±0.42	0.43±0.78	0.69±1.10	Group	2	1.16	1.38	.261
										Time	2	1.48	2.01	.145
										Group *Time	4	0.62	0.65	.622
Seen friends threatened	0.14±0.48	0.55±1.17	0.33±0.76	0.67±0.85	0.62±0.82	0.65±0.82	0.17±0.38	0.52±0.79	0.60±0.98	Group	2	1.87	1.65	.203
										Time	2	1.45	2.23	.119
										Group * Time	4	1.45	1.71	.154

*Note: *p<.05*

The witness behaviors were significantly different over time for 'seen friends being hit' and 'seen friends pushed', and there was a significant group difference for 'seen friends pushed', but no interaction between two factors as similar to Bonferroni test.

Table 32. Paired comparisons of between-group differences over time for witness behaviors.

Witness behaviors	Control–MM												Control–ART											
	Pre-intervention				1 Mo post-intervention				3 Mo post-intervention				Pre-intervention				1 Mo post-intervention				3 Mo post-intervention			
	df	Mean Diff.	t	Sig	df	Mean Diff	t	Sig	df	Mean Diff.	t	Sig	df	Mean Diff.	t	Sig	df	Mean diff.	t	Sig	df	Mean Diff.	t	Sig
Seen friends being hit	94	−0.66	−5.32	.000*	74	−0.06	−0.29	.770	75	−0.42	−3.17	.002*	77	−0.26	−1.79	.077	68	−0.18	−0.69	.492	66	−0.27	−1.57	.120
Seen friends pushed	94	−0.54	−4.42	.000*	74	−0.18	−0.73	.467	75	−0.47	−3.10	.003*	77	−0.28	−2.02	.047*	68	−0.01	−0.50	.961	66	−0.27	−1.55	.125
Seen friends yelled at	94	−0.33	−3.14	.002*	74	−0.13	−0.52	.601	75	−0.33	−2.02	.047*	77	−0.18	−1.45	..150	68	0.03	0.12	.904	66	−0.18	−1.11	.269
Seen friends chased	94	−0.33	−2.92	.004*	74	−0.10	−0.46	.641	75	−0.32	−1.57	.120	77	−0.05	−0.48	.632	68	0.01	0.05	.959	66	−0.36	−1.42	.159
Seen friends threatened	94	−0.53	−3.86	.000*	74	−0.06	−0.27	.787	75	−0.32	−1.76	.082	77	−0.03	−0.27	.785	68	0.03	0.11	.908	66	−0.27	−1.26	.210

*Note: *p<.05*

There were significant differences in mean scores for all witness acts between the control and MM groups at pre-intervention, and at three

months post-intervention there were significant differences for three behaviors ('seen friends being hit', 'seen friends pushed', and 'seen

friends yelled at'). Between the control and ART groups the only significant difference in mean scores was at pre-intervention for 'seen friends pushed'.

Table 33. Comparison of negative emotions between control and intervention groups from pre–post to follow-up by 2-way ANOVA.

Negative Emotions	Means ± S.D.										df	Mean Square	*F*	Sig
	Control –Pre test	Control –Post 1 Mo	Control –Post 3 Mo	MM– Pre test	MM– Post 1 Mo	MM– Post 3 Mo	ART–Pre test	ART– Post1 Mo	ART– Post 3 Mo					
Anger-Out	1.23±0.42	1.19±0.39	1.17±0.38	1.27±0.45	1.27±0.45	1.32±0.47	1.30±0.47	1.34±0.48	1.21±0.42	Group	2	0.40	2.63	.085
										Time	2	0.10	0.62	.543
										Group *Time	4	0.03	0.14	.967
Control-Out	1.17±0.38	1.21±0.41	1.12±0.33	1.27±0.45	1.17±0.38	1.16±0.37	1.30±0.47	1.30±0.47	1.17±0.38	Group	2	0.20	1.34	.273
										Time	2	0.03	0.21	.806
										Group *Time	4	0.21	1.48	.214
Anger-In	1.25±0.43	1.11±0.32	1.17±0.38	1.15±0.36	1.03±0.18	1.09±0.30	1.39+0.49	1.26±0.44	1.34±0.48	Group	2	0.86	5.44	.008*
										Time	2	0.15	1.18	.317
										Group *Time	4	0.01	0.10	.981
Control-In	1.23±0.42	1.23±0.43	1.10±0.30	1.35±0.48	1.24±0.43	1.16±0.37	1.34+0.48	1.34±0.48	1.17±0.38	Group	2	0.51	2.57	.090
										Time	2	0.11	1.00	.377
										Group *Time	4	0.30	1.83	.131
Depression	1.14±0.35	1.17±0.38	1.26±0.44	1.17±0.38	1.10±0.30	1.28±0.45	1.17+0.38	1.39±0.49	1.34±0.48	Group	2	0.49	2.62	.084
										Time	2	0.12	0.68	.509
										Group *Time	4	0.12	0.82	.511

Note: *p<.05

There was a significant difference only for anger-in expression, but there were no interaction or time effect tests for any of the negative emotions. Similarly, Bonferroni test was not shown a significant difference for negative expressions.

Table 34. Paired comparisons of between-group differences over time for negative emotions.

Negative emotions	Control–MM												Control–ART											
	Pre-intervention				1 Mo post-intervention				3 Mo post-intervention				Pre-intervention				1 Mo post-intervention				3 Mo post-intervention			
	df	Mean Diff.	t	Sig	df	Mean Diff	t	Sig	df	Mean Diff.	t	Sig	df	Mean Diff.	t	Sig	df	Mean diff.	t	Sig	df	Mean Diff.	t	Sig
Control-Out	94	–0.04	–0.47	.637	69	0.04	0.43	.668	69	–0.03	–0.43	.668	77	–0.07	–0.66	.509	63	–0.09	–0.79	.428	61	–0.04	–0.52	.600
Anger–Out	94	–0.09	–1.12	.265	69	–0.08	–0.83	.405	69	–0.14	–1.44	.153	77	–0.03	–0.39	.694	63	–0.15	–1.40	.164	61	–0.04	–0.40	.686
Control-In	94	–0.11	–1.26	.210	69	0.00	–0.03	.975	69	–0.06	–0.76	.449	77	–0.11	–1.05	.296	63	–0.10	–0.93	.352	61	–0.07	–0.84	.404
Anger-In	94	0.10	1.18	.239	69	0.08	1.25	.214	69	0.07	0.93	.354	77	–0.14	–1.25	.214	63	–0.14	–1.46	.149	61	–0.17	–1.55	.125
Depression	94	–0.03	–0.42	0.67	69	0.07	0.83	.408	69	–0.01	–0.14	.889	77	–0.03	–0.34	.731	63	–0.21	–2.00	.049*	61	–0.08	–0.68	.494

Note: *p<.05

There were no significant differences between the control and MM intervention groups. However, there was a significant difference

between the control and ART intervention in relation to depression at one month post-intervention.

8.2. Qualitative Analysis

Participant change was assessed after the interventions (MM or ART) by in-depth semi-structured interviews. The total number of participants was 83 (48 for MM and 35 for ART). With the MM intervention, 24 students were interviewed at one month post-intervention and the other 24 participants were interviewed at three months post-intervention. For the ART program 21 students were interviewed at one month post-intervention and 14 students after three months. No students from the control group were interviewed at either time point. The findings are reported in terms of overaching themes of behavioral and moral change.

8.2.1. Consequences of Mindfulness Meditation One Month After Intervention.

Meditation is the exercise of contemplation or mental focus on specific objects or themes, and there are many types of meditation within the Buddhist tradition. Mindfulness Meditation aims to attain calmness and refers to a careful awareness of one's thoughts and feelings.

8.2.1.1. Emotional change

- **Calmness**

Most students who attended the MM program for three consecutive weeks found that it created inner calmness and enabled them to relax, leading them to be more patient with annoyance. When they focused on breathing, they reported that they could prevent their mind from wandering.

Architecture, Year II: I am <u>calm and relaxed</u> after finished this activity.

Architecture, Year I: I am still praying, chanting and doing meditation, leading me to <u>be relaxed and calm.</u>

Welding Year, III: I am still doing meditation because I <u>feel relaxed</u> after doing it.

Architecture, Year II: Meditation makes me <u>calm</u> and focused more than anything. I am <u>more patient</u> to listen other people more now.

Computer, Year III: I learned from this activity <u>to be patient</u> when I am annoyed. Also, if I do something bad – bad will be given to me in return.

- **Consciousness**

The form of MM emphasizes awareness of the present moment. The awareness occurs through a non-judgmental acceptance of all that arises in the mind and body as one observes oneself. Some students developed self-awareness or consciousness to guide their thoughts through their emotions. As a result, the focus on breathing provided them with a 'resting place for the mind', that allowed thoughts, feelings, and sensations to be brought into awareness.

Power & Electronic, Year II: I have <u>consciousness</u>. It seems when I want to do something – I <u>have more self-awareness</u> to control my thoughts and my emotions.

Computer, Year III: …..Actually, my behaviors are not changed because of this activity, but this activity has generated <u>more self-awareness</u>. Subsequently, <u>I think more</u> before doing and not let myself to do something bad.

Welding, Year III: I have <u>more consciousness</u>. For example, when I want to do something, I have <u>more awareness</u> of that and <u>think more</u> before doing it. It is not 'do first and think it later' like in the past

8.2.1.2.   Behavioral change.

Buddhist teaching provides a specific system or set of beliefs about reality (philosophy), a specific theory of the human mind and human behavior (psychology), and a specific set of recommendations for appropriate conduct (ethics).

- **To parents**

While practicing meditation, students had more time to think about what happened in the past and at present, or whether they had done anything right or wrong that led them to clarify themselves with thinking more and thinking carefully, especially their responsibilities to parents. Thai tradition is focused on how to behave properly to parents. Consequently, parents make considerable self-sacrifices for the good of their children that could be considered a moral debt, which is repaid by being respectful and behaving appropriately. Most teenagers do not care about parental concerns and do not want to obey them; nevertheless, after finishing the program, students reported that they had dramatically changed their behaviors toward their parents (stopped yelling and arguing back, and not behaving inappropriately).

> *Architecture, Year II: This activity is <u>helping me lots</u>. In the past, I had done a lot of bad things with Mom, including <u>arguing, yelling back and slamming doors</u>. Now, I <u>change</u> her complaints to be a funny story. Most arguments with Mom are related to me hanging out with friends without going back home.*

> *Architecture, Year II: When monks gave lecture on a Mom topic, talking about kids who <u>yelled</u> at Mom, I wanted to go back home immediately to meet Mom and give her hug because of that.*

> *Architecture, Year II: This activity <u>has changed</u> me. Now, I take more time with Mom. Mom loves me but I didn't pay attention to her acts, so I understood that she did not love me.*

> *Electronic, Year II: I usually got into arguments with Dad in the past. Nevertheless, I have <u>not argued</u> with Dad since finishing this activity. Dad quite wonders what has happened to me. I told him that monks told us that parents are persons who have to be given high regard, respect and obedience.*

> *Architecture, Year II: In the past, when Mom complained one word, I <u>yelled back</u> more than she did. Now, I am still arguing with Mom but it <u>rarely happens</u>. I know that I can <u>change</u>- I want to change. I don't want to argue with Mom because of boredom.*

> *Welding, Year III: I learned something related to a Mom topic. It has given me a chance to be <u>a better guy.</u> In the past, I gave Mom a little bit of money, but I expect to give her more money in the future.*

- **To friends**

Regarding the impact on friends, when students got annoyed with their friends, they tried to avoid or ignore them by walking away. During meditation, a calm mind is developed by internally paying attention and keeping away from distractions. Then, the awareness of the present reality is established and is referred to the adaptive process by which stressful events are reconstructed as beneficial, meaningful, or benign (e.g., thinking that one will learn something from a difficult situation) (Garland, Gaylord, & Fredrickson, 2011).

> *Architecture, Year II: I got annoyed easily in the past. Now when I get annoyed from someone or something, I <u>walk away right away</u>.*

> *Architecture, Year III: I know that my behaviors have <u>changed a lot</u> since the activity finished. In the previous, I easily got angry when friends annoyed me, so I yelled at them back immediately. Now, <u>I rarely shout or yell at them</u>.*

- *To work and study*

Participants reported that they could concentrate on lectures more and were able to ignore friends who bothered them during classes. The self-control that is particularly developed during meditation practice appeared to build up students' capacities to maintain attention longer.

> *Architecture, Year III: After I practiced meditation it led me to <u>focus on anything more</u>; for example, I could pay attention to work longer, and think about it carefully. So I could finish my work quickly.*

> *Architecture, Year I (Diploma): Meditation has enabled me to <u>focus on anything more</u>.*

Electronic, Year II: ....In the past, I learned any subject slowly, especially mathematics and I took more time for chatting in the class. However, after finishing this activity, I could <u>concentrate more on</u> the subject leading to understand that subject more.

Machinery, Year II: I got many things from this activity, especially meditation. Now, I could <u>maintain my attention to lectures more</u> during attending in the class, so it is good. I could understand in subjects resulting from <u>paying attention to the lecture until it is done</u>. In the past, I listened to the lecture for a while, then I was going to chat with friends, but now it is changed.

8.2.1.3. Therapeutic effects.

The MM created the therapeutic benefits of producing good sleep and reducing migraine headaches. Through the practice, students were able to calm their minds by focusing on their breathing, so perhaps it decreases a brain function and builds emotional and physical relaxation.

Architecture, Year I (Diploma): I get a migraine headache which attacks often, twice in a week or happens in two weeks continuously sometimes. After I practiced meditation with listening to music together my <u>migraine headache is reduced significantly</u>, just happened only once or twice for two weeks. I feel very good. Also, I <u>had never had a migraine attack</u> during 15 days of the training course over 3 weeks.

Welding, Year III: I do meditation before going to bed resulting in <u>sleeping well</u>. Generally, I go to sleep in the early morning around 2 am because I have a part-time job in the night club as a bartender.

8.2.1.4. Miscellaneous.

While the activity was running, the participants had time to know each other and to undertake activities together without fighting. In addition, they provided a prosocial model for friends from different departments.

Architecture, Year II: ... Actually, the school doesn't allow us to meet together because of fights. However, we joined together among departments in this activity, so I just know that friends from different departments <u>are good</u>.

8.2.1.5. **Lessons learned from visiting a prison and a care home for children with intellectual disabilities**

Even though meditation appeared useful, positive reinforcement may be important in maintaining change. Positive reinforcement was created in this trial by visiting a prison and a care home for children with intellectual disabilities. A jail tour aimed to give participants insight into the physical environment and atmosphere in the prison, and on how prisoners spent their time. On the other hand, when students visited at the care home for children with intellectual disabilities, it inspired them to do good things and appeared to enhance their self-esteem. These activities may strengthen existing protective factors and promote resilience in students.

> ***Computer, Year III:*** *… When I saw prisoners in a jail, I felt that people who live without freedom are at <u>the worse point in their lives</u>. Everything in their lives is going to the end, and they could not go back to fix any mistake they made in the past. Also, they have been wasting their time for many years in the prison. It has <u>helped me</u> <u>to realize the value of time</u>. ….Also, when I went to the care home for children with mental illness it inspired me to think about myself that I am more perfect than them, and I have many people to take care of me and be concerned about myself. Unfortunately, <u>I didn't realize the importance of this before</u>. It is reminded me how lonely they are to live without love.*
>
> ***Machinery, Year II:*** *When I first visited the jail I <u>really understood</u> that <u>life in the prison is suffering</u>. We have more freedom to do anything outside, such as getting up late, but prisoners are not able to do. If they get up late, they will be hit or get other punishments.*
>
> ***Power, Year II:*** *I <u>got a lesson</u> from visiting a care home for children with mental illness. Although they are disabled, without legs and arms, they <u>are still fighting for life</u>. I have a more perfect body than them, why I should give up for something. If they can study in the school and work for their living, I can do so also.*

8.2.2. Consequences of Mindfulness Meditation Three Months After Intervention.

A follow-up process was conducted to assess the results of MM at three months post-intervention. The following behavioral and emotional changes were identified.

8.2.2.1. Emotional change

Students reported still being calm and relaxed and having more tolerance of emotional triggers from annoying friends. One of them reduced his anger without paying attention to the annoyance and developed internal calm by producing more self-control.

> ***Power & Electronical, Year II:*** *Life is getting better. I still feel calm and relaxed.*

> ***Architecture, Year II:*** *.... I meditate for reducing my mood to calm myself down-sort of. I got annoyed easily in the past, but now I can calm myself down. I learned from the monks that we should not pay attention to the useless thoughts, it is waste of time.*

> ***Architecture, Year II:*** *My life is better than last semester. I am calm and relaxed. When friends annoyed me, I didn't response to them, just let them do it.*

> ***Computer, Year III:*** *I don't go back home late at night anymore, just hanging out with friends in pubs sometimes. ...When someone annoyed me, I tried to avoid talking to them or letting them talk. I try not to get into an argument.*

> ***Architecture, Year II:*** *When I felt upset I did something that could make me smile, such as playing with friends. Sometimes, I suppressed an anger by not thinking through that and thought why I got cranky with that.*

8.2.2.2. Behavioral change

Students reported thinking carefully and being better able to consider the consequences of improper behaviors. They improved their behavior by going back home early and rarely drinking alcohol. They knew how to behave in the proper way, how to refuse an invitation from friends, and how to control their emotions.

Architecture, Year II: Lectures from monks are given to us to understand what a good person and a bad person are, what the moral is, and what the consequences of doing bad things are. In the past, I went back home late at night, and were absent from class a lot. When I finished the class, I hanged out with friends, drinking alcohol together. Nevertheless, now <u>I rarely drink alcohol</u> and maybe attend the class late someday, but I go to school every day. Also, I <u>don't go back home late</u> at night again. …. When I attended this activity for 15 consecutive days, that is a long period of time and is immersed to be a part of my life already, so <u>my behaviors have changed</u> since then. I gain more knowledge from lectures which are guiding me through a new life direction. Now, I <u>know how to refuse friends' invitations</u> to drink alcohol and <u>how to avoid</u> hanging out with them until late at night. Indeed, I am able to avoid bad things.

Architecture, Year II: I have done meditation often during this semester to <u>control my emotion</u>. In the past, when I made decision on anything, I did it without thinking carefully. Now, I <u>consider anything carefully and think of further consequences</u> of doing that.

Welding, Year III: I <u>don't hang out often</u> with friends now. After I finish workplace training I go up to my room right away and am not going out anywhere…..When I stay alone, I can do anything by myself, so I <u>feel comfortable and relaxed</u>. On the other hand, when I stayed at home – I usually had problems with a stepmother. In the past, I was short-tempered and easily got annoyed. When someone annoyed me, I quickly responded to them right away. Sometimes, it could make people unhappy with my responses. But now <u>I feel calm and relaxed</u>.

Architecture, Year II: I <u>learned lots</u> from this activity. I did anything without thinking in the past, but now I think it carefully and know <u>how to do anything properly</u>. I learned how to manage my life in a proper way from those lectures.

8.2.2.3.   Impact of external factors

- **Family and school environments**

External environments, including family problems and the school atmosphere, may enable or constrain behavioral change. Some students reported that they were bored and got annoyed easily. They responded by hanging out with friends until late at night and drinking alcohol. Nevertheless, the influence of MM was still evident. For example, when juniors did not obey them, they tried to control their emotions and be patient.

Architecture, Year II: *… Life is* <u>*boring.. I feel bored ..bored.*</u> *I suppose I see the same things repeatedly. I go back home late at night often, just* <u>*going to drink alcohol with friends*</u>*. I don't want to go back home. When I went back home around 2 am in the morning and went to bed, it was hard to fall asleep. My* <u>*behaviors*</u> <u>*are changing*</u> *a lot – In the past, I rarely went back home late at night without drinking alcohol with friends, now I do it. …Of course, it is* <u>*a family problem*</u>*.*

Architecture, Year I (Diploma): *I* <u>*often get annoyed*</u> *–three to four days a week. My life seems* <u>*so boring*</u> *because of dull school atmosphere. In the past, senior and junior students took care of each other, and juniors were supposed to obey senior friends. Now, I am a senior and have* <u>*a lot of work to do*</u>*, also I have* <u>*a responsibility to take care of younger students*</u> *as well. When I told them something, and they didn't obey me, I easily got upset. Anyway, I am supposed to* <u>*be patient*</u> *because they will study here at least 2–3 years. So, I have to adjust myself to get along with them. If* <u>*they still don't believe in me when I told them – just let them go*</u>*. I don't want to talk to them more or to explain more, because if I do, I could be gotten angry easily leading to fights with them.*

8.2.2.4.   Lessons learned from the past

Participants wanted to succeed in their studies.

Welding, Year III: *I want to work now-*<u>*boring to go to school*</u>*. There are many neighborhood friends graduated from the school – that is why I want to graduate and go to work. Actually, I thought like this a long time ago, but when I was in the school – I* <u>*did whatever friends did*</u>*, such as class absences.*

Machinery, Year III: *This semester is good for me in everything, friends, school and teachers. I thought that my study is going good. I got a lesson from* <u>*bad experiences*</u> <u>*by being kicked out*</u> *from the prior department because the grade point averages were below the standard criteria. I expect to graduate soon in this year.*

8.2.2.5.   Therapeutic effects.

The MM still requires practice.

Architecture, Year III: *Migraine headaches still* <u>*attack often,*</u> *approximately 5–6 times a week. It maybe because I am so busy, having a lot of work to do, so I have to* <u>*work until late at night*</u>*. I work for homework from school and for my family business as well. I go to the school two days a week –Thursday and Friday, and I work for the family business in the rest of the week, lots of things to do.*

Power & Electronic, Year II: *I still* <u>*practice praying and chanting*</u> *every night, it helps me to* <u>*sleep well*</u>*.*

8.2.3. Consequences of ART One Month After Intervention.

The ART intervention appeared to have a similar impact to MM on emotional and behavioral change. Participants reported that they could reduce anger and were able to try and avoid annoying situations.

8.2.3.1.   Emotional change

The ART method is intended to help students control their emotions. Students learned to prevent and reduce their anger by avoiding irritating situations, ignoring annoying people, walking away from annoyance, and turning the annoyance into fun, resulting in calm.

> ***Year I:*** *I got a lesson from this activity on how to <u>reduce my anger</u>. I thought that I can control my emotion more than in the past by <u>avoiding or ignoring</u> anything that could generate anger. I play games and listen to songs instead when I feel angry.*

> ***Year I:*** *When I got a lot of complaints from Mom, I just <u>walked away</u>. I don't want to argue with Mom.*

> ***Year I:*** *I learn from this activity how to <u>calm myself down</u>. According to the suspension from the school, students from the mechanics department tried to tease and provoke us for a while in the cafeteria, so I told my friends to i<u>gnore them and keep walking away.</u> We tried to do that but when they started chasing us we ran away immediately, subsequently a friend was injured on his little finger by knives.*

> ***Year II:*** *I think I feel <u>calm</u>. I know that my behaviors are changed after finishing this activity. In the past when friends annoyed me I yelled back at them, but now I <u>make fun</u> with them.*

> ***Year II:*** *I learn more about the consequences of fighting, so I try to <u>control my emotion</u> and not get mad easily with thinking more before doing anything. Now, I <u>feel calm</u> and don't talk as much as in the past. When friends tried to tease or mock me, I thought – I <u>don't pay attention</u> to them without thinking anything.*

8.2.3.2. Behavioral change

Students reported feeling more empathy for others and considering things more deeply before responding. For example, they preferred to walk away from annoyance rather than engage in arguments or fights. Students learned if they put effort into studying, they could make a better life. Additionally, they could learn from other people.

> ***Year I:*** *I feel <u>close to</u> senior friends and friends more, am using <u>empathy more,</u> and <u>think carefully</u>. When someone annoyed me in the past I responded by yelling back at them. But now I never do like that – just tell them that I don't like what they do. If they don't listen to me I <u>ignore or avoid them by walking away</u>.*

> ***Year I:*** *I learn more from this activity and try to use lessons from this to <u>make my life better</u>. For example, if I could not do something and want to do it, I have to <u>work hard and learn from others who can do</u>.*

8.2.3.3. Lessons learned

In addition to controlling anger, moral beliefs were enhanced in participants, as evidenced by their comments on how they evaluated the various consequences of their actions.

> ***Year I:*** *I gain more knowledge about the <u>consequences of fights,</u> what will happen after that.*

> ***Year II:*** *It is given me a chance to realize <u>the consequences of doing school hazing</u>.*

> ***Year I:*** *I learn more about <u>the consequences of engaging in fights and school hazing</u>. I really understand what will happen if I do that, such as suspension and expulsion.*

8.2.3.3.1. **Lessons learned from visiting a prison and care home for children with intellectual disabilities**

The jail tour appeared to be useful as it illustrated the powerful penalties associated with perpetrating violence. The visit to the care home for children with intellectual disabilities appeared to create high self-esteem.

> *Year II: Some children with mental illness could not say what they want and some of them could not see anything. Also, some children without arms and legs are very good at painting, better than I can do. At the moment, it has given me the chance to clarify that I have done anything the best yet and it <u>inspired me</u> to pay attention to my <u>study more</u>. When I visited a prison I felt like I <u>don't want to do anything bad or make mistakes</u> in the rest of my life.*

> *Year II: When I visited a jail, I thought that I <u>don't want to do any bad things or make mistakes</u> in the rest of my life. Actually, I have an individual problem and like to hurt myself sometimes. After I saw children with mental illness<u>, I don't do as I did before</u>. Now, when I get in trouble with my Dad, I just let him know what I feel and what I thought. Of course, my life is getting better than in the past, so I feel calm and relaxed.*

> *Year I: I saw prisoners' lives in a jail. I had never .. never seen like this . It has made me become <u>more aware of doing anything</u>.*

8.2.4. Consequences of ART Three Months After Intervention.

Three months after the ART intervention, most participants felt that they could control their emotions when they got annoyed, particularly at school. When students felt unhappy or bored with school, they reported that they kept themselves together and did not show aggression toward others.

8.2.4.1. Emotional change

Bonding between friends can be very strong. When friends drop out or are expelled for any reason, it influences students' emotions, including boredom, unhappiness and loneliness. Subsequently, it may lead to absences from class and not going to school.

Year II: I <u>don't want my friends to have gone</u>. Now we have a few friends left – less than ten.

Year II: I am <u>so bored, only </u>a few friends are left. Anyway, I want to graduate from the school because I failed the last year. … When I feel bored I chat with friends here.

Year II: I am <u>very sad</u> that <u>many friends dropped out</u> from the school.

Year I: Several friends <u>have gone</u> – it is quiet here. Some friends will come to the department only in the afternoons, so there is no one here before lunch time. I <u>feel bored</u> by a school environment with <u>having a few friends</u>. I feel like <u>don't want to come to school sometimes </u>because of that.

Year II: I <u>feel lonely</u> because I have only a few friends left. I am <u>really bored</u> with <u>school environments and study here.</u>

Year I: I <u>was suspended</u> from the school for seven days because of engaging in fights. I only hit him just once- not do anything more. <u>I feel a bit angry</u> but I can't do anything with this. So, I <u>don't pay attention </u>to it.

8.2.4.2. Lessons learned from the past

A failure from the past could inspire a student to study more and concentrate on his study.

Year II: ......Now, I <u>pay attention to my study</u> a bit more because I <u>want to graduate</u> from the school. I am repeating first year now. Last year I failed resulting from going back home in the countryside and never coming back here again.

8.2.4.3. Impact of external environments

A family problem is still one of the most significant factors leading to dropping out of college. Additionally, fights between colleges did lead to one student being expelled.

Year II: I <u>feel sad</u> because many of my <u>friends were gone</u>. However, next semester, I will be gone too because I am going to <u>work instead of Dad</u>. Mom is sick and had surgery last month, so she could not do her daily routine – Dad takes care of her in the hospital.

Year II: I <u>never get angry</u> now and never hurt myself anymore. However, I am <u>bored </u>right now because many friends and junior friends <u>dropped out</u>. They have <u>family problems or fights </u>against another school.

Year II: I am <u>very sad</u> because I have <u>been expelled</u> from the school. I don't know what the new school is, and I have not told my Dad yet. I am afraid to tell him about this. I am <u>so bored</u> right now. I accidentally found him going with his girlfriend. I could recognize him because he and his friends <u>chased me many times</u> at department stores. When I saw him – I stopped his car and took his belt, but my friends hit him only once. Then, police came to charge us and called our parents to receive an accusation with paying 4,000 baht (AUD $130) for penalty. My friends got suspended for seven days from the school.

In sum, the quantitative findings showed that mean number of reports for some violent behaviors in both the MM and ART groups fell slightly from pre-intervention to one month post-intervention but changes were not sustained at three months post-intervention. There were significant differences between intervention and control groups for most offender behaviors at three months follow-up. Victimization rates changed across time between pre-intervention and post-interventions, and indirect victim effects differed between intervention and control groups. Witness behaviors were significantly different between intervention and control groups at pre-intervention, while for negative emotions anger-in expression was the only measure to show differences between intervention and control groups

The qualitative findings showed that participants in the MM intervention gained enhanced self-awareness through a non-judgmental acceptance that could guide their thoughts through their emotions. They were able to think more fully and carefully about their behaviors to parents and to others. Additionally, MM provided therapeutic effects of reducing migraine headaches and enhancing sleep patterns. The visits to the jail and home for children with intellectual disabilities appeared to enhance self-esteem and promote resilience. Likewise, the ART intervention appeared to build self-control leading to reduced anger, and participants also learned how to avoid becoming annoyed.

Chapter 9

Discussion

Physical violence among male technical college students has attracted national attention in Thailand following the deaths of a large number of young people (*Bangkok Post*, 2010). The pilot study used semi-structured in-depth interviews with a sample of Thai technical college students to understand more about why students engage in interpersonal violence.

The preliminary study's objectives were:

      1. To understand the reasons why young men in Thai technical colleges engage in violence.

      2. To develop a cross-sectional survey to be used in Phase II.

This study suggests that aggressive and violent behavior in Thai male technical college students occurs in a different social context to that which provides the setting for violence in Western and other Asian countries. In Western cultures, for example, youth violence is thought to be related frequently to substance abuse (Ellickson & McGuigan, 2000; Lee, Chen, Lee, & Kaur, 2007; Lowry et al., 1999; National Institute of Justice, 1999; Rudatsikira, Mataya, Siziya, & Muula, 2008) and verbal assaults (Chen & Astor, 2009; Pateraki & Houndoumadi, 2001; Rudatsikira et al., 2008). A recent Taiwanese study found that most school violence perpetrators reported that violence was related to having fun, and typically was prompted by disagreement or provocation (Chen & Astor, 2009). In this study, verbal abuse among friends in Thai technical colleges was rarely a cause of physical assault, but could lead to fights when the provocation came from

students from a different college. Unlike other countries where school violence is most likely to occur in schools (Culley, Conkling, Emshoff, Blakely, & Gorman, 2006), physical violence in Thai male technical colleges rarely happened inside schools, but instead on the way to or from schools.

Although students travelled together in big groups, this cannot necessarily be understood as "gang" behavior. Gangs are different from peer groups in terms of territoriality (Klein, 1996), structure, and powerful group processes (Bouchard & Spindler, 2010; Decker & van Winkle, 1996). For example, 'street gangs' are "something special, something qualitatively different from others groups and from other categories of law breakers" (Klein, 1995, p. 197). The activities of some types of gang can be likened to general adolescent experimentation and risk taking (e.g., in drug use, drug sales, and one particular type of delinquency, vandalism). This study clearly showed that students drank alcohol and a few used methamphetamines, but they had not been involved in any type of drug trade or in vandalism. They engaged in gang fights or physical violence only to protect themselves from students in other colleges.

Parental monitoring helps to create balance in family relationships and is associated with high levels of communication and support in the child–parent relationship (Ceballo, Ramirez, Heran, & Maltese, 2003). In this study, a lack of parental monitoring did not appear to be strongly related to school violence. The interviews clearly showed that parents were not only concerned about their children's behavior, but monitored it closely. Although a strong bond often exists between parents and children in Thai culture, this does not appear to act as a protective factor against school violence. This supports the findings of research conducted with Asian American youths, which

suggest that family bonding (closeness, engagement, monitoring) is largely insignificant in preventing delinquent acts (Jang, 2002).

Similarly, school attachment does not appear to act as a protective factor, despite this being consistently identified in studies of non-Asian young people (Hawkins et al., 2000). Nearly all the students in this study liked their school and expressed a high regard for their teachers. This did not, however, stop them from fighting. Nearly every participant reported that he drank alcohol, smoked cigarettes, and used illicit substances. Nevertheless, hardly any of the students believed that they engaged in fights as a result of drug intoxication.

Anger and revenge have been identified as motivators for nearly half of adolescent interpersonal violence (Pfefferbaum & Wood, 1994). Vengeance is an attempt to compensate an interpersonal offence by deliberately committing an aggressive action against the perceived offender. Indeed, vengeance can be viewed as an expression of the reciprocity norm: the basic inclination to return harm for harm. Even though students did not appear to know why students from other colleges wanted to abuse them physically, they still engaged in fights when their friends got injured. The day of "pay back" was set up as soon as possible, and all students from other school were targets, whether they were offenders or not. Hence, innocent bystanders got injured (*Bangkok Post*, 2010). Anger violence, related to vengeance and intended to punish students from the violators' school, was planned by friends or senior students. This reflects on the relationship between students in technical colleges. Senior students were more likely to take care of younger students by sending them home and giving them advice when required, thus creating a strong bond between them. Indeed, if senior students invited junior students to

engage in a fight or to join in activities such as drinking alcohol or paying for a rental house, they were unlikely to refuse. Additionally, after finishing class, students were expected to go back home together in a big group.

Technical college students felt that they could lose their position as a dominant group unless they had access to weapons. They rented places where they could store weapons so they were easy to obtain when needed. Given that physical violence could happen at any time while travelling between college and home, students were especially fearful of violence when travelling. In order to avoid the violence, nearly 80% of students used motorcycles to go to college. However, they still encountered students from other colleges and often experienced stress and anxiety. This is consistent with several findings showing that exposure to violence is strongly related to internalizing problems, such as anxiety and depressive symptoms (Cooley et al., 2001; Lynch, 2003; J. D. Osofsky, 1999). Additionally, the high levels of exposure to violence, especially community violence, promote maladaptive behaviors such as aggressiveness and delinquency (Barkin, Kreitetr, & DuRant, 2001; Scarpa, 2001). The negative consequences of offending (i.e., loss of social relationships, school expulsion) may limit offenders' opportunities to engage in prosocial activities and increase psychological distress within the individual. Furthermore, internalizing disorders may impair the capacity to withdraw from risky situations, resulting in failure to engage in self-protective behavior (Orcutt, Erickson, & Wolfe, 2002).

9.1.   Findings of the Cross-sectional Study

The objectives and hypotheses for the cross-sectional study were:

Objectives

1. To assess the associations between individual risk factors, environmental risk factors (peer, family, school, community), and anger expression and depressive symptoms.

2. To evaluate the violence *sequelae* related to psychological disorders (depression) and anger expression for offenders, victims (direct and indirect), and witnesses.

3. To explore the associated pathways of anger expression, violence exposure, and the development of internalizing problems (depression).

Hypotheses

1. *Hypothesis 1*. Exposure to violence will be positively related to anger and depressive expressions among offenders, direct victims of violence, and indirect victims of violence in adolescents in technical colleges.

2. *Hypothesis 2*. The presence of risk factors will increase the incidence of violent behavior.

In this survey, the higher prevalence rate of violent behaviors and negative emotions (anger and depression) was presented in Bangkok (urban region) than Nakhon Ratchasima (sub-urban) region. Nevertheless, the violent behavior in technical colleges in Bangkok and Nakhon Ratchasima provinces was shown to be associated with anger

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expression (including anger-out, anger-in and anger-control in). In particular, high anger-out expressions were more likely to be associated with gang fights and attacking someone with weapons, while high anger-in levels were linked to sexual abuse and robbery. On the other hand, high anger-control-in expression acted as a protective factor for nearly all violent behaviors.

Generally, the highest rates of school violence are taken place in larger, public, urban schools, located within disadvantaged communities (George & Thomas, 2000; Miller, 2003). Youth involvement in delinquency are influenced by the desire to protect themselves from being victimized through carrying weapons (Davis,1999; Lawrence,1998; Mercy & Rosenberg,1998). Even though number of youth in the city are able to avoid violence, substantial number of at-risk youth unable to adapt into such environments and are more likely to participate in crime (e.g., see Elliott et al.,1998; Simons et al.,1996). Consequently, youth who are often exposed to violence are more likely to orientate violent and aggressive behavior as normative and probably lose their self-control over time (Gormann-Smith & Tolan, 1998).

Anger is an emotion that can fuel violence and other delinquent behaviors. It can be expressed in two basic ways, either by directing it outward toward individuals or objects in the environment, or by directing it inward by trying to suppress or hold in angry feelings. The expression of anger may be directed inward (anger-in) or away from (anger-out) the self. Indeed, outward expression of anger is associated with violent behavior, whereas anger suppression has been related to anxiety (Spielberger & Sydeman, 1994) and hypertension (Mayne & Ambrose, 1999; Spielberger & Sydeman, 1994), particularly in men (Vögele, Jarvis, & Cheeseman, 1997). For technical college

students, high anger-in was shown to be a risk factor similar to high anger-out expressions. One possible explanation is that anger-in involves an attempt to suppress or deny angry affect, leading to it being internalized and/or directed at the self. When anger expression is suppressed, anger can reach a "boiling point" at which people direct their anger outwardly. Kroner and Reddon (1992) found that when offenders were angry, they were more likely to express themselves using both anger-out and anger-in. Additionally, Gelaye et al. (2008) studied college students in Ethiopia and the findings showed that those with high anger-out scores were more likely to commit violence, with an adjusted odds ratio of 8.37 (95% CI=6.03–11.63). Girls and boys with self-reported high levels of anger were more likely than others to maintain an outward expression style (anger-out) and less likely to endorse a more cognitive, reflective style (anger-control) (Clay et al., 1996). Anger-control attempts to resolve the conflict or frustration by using more cognitive and fewer impulsive responses (Harburg, Blakelock, & Roeper, 1979) to control anger-out and avoid expressing anger, as well as internal efforts to calm down or cool off (i.e., anger control-in) (Spielberger, 1999). Therefore, students who had high anger-control were less likely to be involved in violent behavior and interventions that can assist with this appear to hold promise in preventing violence.

Another way of explaining anger levels related to crime is General Strain Theory (GST) (Agnew, 1992). According to GST, strain is related to criminal behavior because strain (i.e., stress) leads to anger and that anger increases the probability of interactions to engage in various criminal actions (Agnew, 1992; Mazzerolle & Piquero, 1997). Because anger creates a desire for revenge and energizes a person for action, most studies have found support for GST predictions, especially when using interpersonal aggression and

violent crime as dependent variables (Brezina, 1996; Broidy, 2001; Capowich et al., 2001; C. Hay, 2003; Mazerolle, Burton, Cullen, Evans, & Payne, 2000; Mazerolle et al., 2003; Piquero & Sealock, 2004; Sigfusdottir et al., 2004). In particular, anger expression predicted interpersonal aggression but not property offending in college students (Piquero & Sealock, 2000). Similarly, the pilot study undertaken indicated that students reported feeling angry when their friends were injured in fights or had been provoked by students from other colleges. They then sought revenge by engaging in fights against other college students with weapons (wooden sticks, knives, and handguns).

Students with high levels of anger-out were more likely to be offenders. By contrast, students with high anger-control-in were less likely to be offenders. Students with high anger-out levels were more than twice as likely to push or shove someone, and this behavior had higher ORs than other offender behaviors. Because girls and boys spend much of their time in gender-segregated groups during middle childhood and early adolescence (Cairns & Kroll, 1994), most instances of peer conflict occur between members of the same sex. Conflict resolution, particularly in boys, is handled by direct physical aggression, such as hitting, pushing or shoving. Over the years of adolescence, boys' disputes continue to show aggression and other forms of direct confrontation (Cairns & Cairns, 1994; Olweus, 1991). Indeed, in Thailand nearly all technical college students are boys, so a masculine gender role is involved in relation to physical aggression.

Hegemonic masculinity is demonstrated at school through violence and the fashionable 'warrior hero' archetype. In the male school setting, boys learn to negotiate and perform masculine identities in a range of social situations based on cultural,

physical, intellectual, and economic resources that are designed to gain popularity and enhance status in the peer group (Adler & Adler 1998). Therefore, male students deliberately select strategies involving direct confrontation to maintain dominance and power in social relations (P. K. Smith, Bowers, Binney, & Cowie, 1993). Some researchers have conceptualized the more obvious forms of hitting and kicking as direct bullying (Crick, 1997; Crick, Casas, & Mosher, 1997; Menesini et al., 1997; Rigby, Cox, & Black, 1997; Thompson & Sharp, 1998). Bullying is a proactive aggression because students who bully do so to attain social position and maintain control over others (Bosworth et al., 1999). The results of the current study are, therefore, consistent with those from a previous study showing a strong relationship between high levels of anger and bullying behaviors (Bosworth et al., 1999). Regarding victims, students with either high anger-out or high anger-in were more likely to be direct or indirect victims of aggression. However, high anger-control-in was still identified as a protective factor for being a victim. One review of the bullying literature concluded that that boys were more likely to be exposed to violence than were girls, particularly during the middle-school years, and that children who were classified as being repeatedly victimized tended to fall into one two categories: extremely passive or extremely aggressive (Olweus, 1993b). Passive victims tended to be insecure, did not defend themselves, and were rejected by peers. Students who had high anger-in expression were more likely to behave passively. On the other hand, highly aggressive children tended to provoke attacks by others. Nevertheless, students who showed high anger-control were less likely to be victims of direct or indirect violence. One explanation for this may be that non-victims adopt protective coping strategies in facing stressful events by solving their problems in

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constructive ways in order to develop satisfying relations and reduce the risk of negative life events (Bryant, 1992; Erwin, 1995). The protection of friends and family support seems to reduce the levels of victimization.

Students who had high anger-out levels were more likely to be eyewitnesses of violent behaviors, whereas students with high anger-control-in levels were less likely to be witnesses of any violent behavior. In the context of school violence, typical witness events are students witnessing fights or other acts of physical aggression. The presence of witnesses frequently provides the important social sanction in promoting or preventing violence (Baumeister, Smart, & Boden, 1996; Fagan & Wilkinson, 1998; Sampson & Lauritson, 1994; Slaby, Wilson-Brewer, & DeVos, 1994; Tedeschi & Felson, 1994; Tremlow, Sacco, & Williams, 1996). Two types of bystander have been identified by researchers on bullying and fighting, active and passive (Olweus, 1991, 1993a, 2001; Salmivalli, 2001; Slaby, 1997; Slaby et al, 1994; Tremlow et al., 1996). Active bystanders, who often sympathize with the aggressors, foster violence when they prevent others from intervening in an altercation, enthusiastically encourage aggressive behavior (e.g., cheering on a fight), or serve as accomplices or co-perpetrators (Salmivalli, 2001; Slaby, 1997; Tremlow et al., 1996). Passive bystanders, while doing nothing to stir up, instigate, or encourage violence, also do nothing to prevent it from escalating. Their presence may foster violence because peers feel greater pressure to demonstrate their toughness, prove their superiority, or defend their honor. The presence of passive bystanders may also encourage future violence by sending the message that aggressive behavior is acceptable (O'Connell, Pepler, & Craig, 1999; Tremlow et al., 1996). Witnesses who encourage peer violence presumably display external anger expression.

College students who had viewed violence were significantly more likely to have more aggressive and negative emotions (anxiety and depression) (Forsstorm-Cohen & Rosebaum, 1985). On the other hand, students with high anger-control expressions were less likely to be involved in violent behavior as bystanders. It is possible that students with high cognitive control attempt to use moral reasoning and judgment as a part of the reappraisal process to avoid situations that might lead them to raise their anger expression. This hypothesis is consistent with evidence related to bystanders' reaction to school bullying, which indicates that most bystanders are outsiders who are likely to stay away from the situation and remain uninvolved (Oh & Hazler, 2009). The basic reasons why bystanders are hesitant to intervene include not knowing what they should do, being fearful of revenge, or concerned about doing the wrong thing and causing even more problems (Hazler, 1996).

In the study, students with depression were more likely to be involved in any type of violent behavior, as offenders, direct and indirect victims, and witnesses. Additionally, for students who engaged in any kind of violent behavior, being offenders, direct and indirect victims, and witnesses were all strongly related to depressive symptoms. In particular, students involved in delinquent behavior linked to weapons were nearly twice as likely to experience depressive symptoms as others. Empirical support for depression leading to delinquency or delinquency leading to depression is inconsistent, and there is limited theory addressing which sequence is more likely (cf. Patterson et al., 1989; Patterson, Reid, & Dishion, 1992; Patterson & Stoolmiller, 1991).

Patterson et al. (1992) have proposed a stage model to explain relations between early antisocial behavior and its multiple consequences, including depressed mood. In

this model, children's antisocial behavior elicits predictable reactions from their social environment, for example, rejection by the family and peers and academic deficits. These reactions disrupt the normative socialization process and lead to associations with deviant peers, antisocial attitudes, and depressed mood. In the later stages of the model, the depressed mood resulting from earlier antisocial behavior and its negative consequences is expected to precede more delinquent behavior. Specifically, the model predicts that depressed mood, involvement in a deviant peer group, and antisocial attitudes resulting from normative social failure may lead to increased delinquency. Loeber, Russo, Stouthamer-Loeber, and Lahey (1994) studied two community samples of boys followed from ages 10 to 12.5 years and ages 13 to 15.5 years and found that stable depressed mood (i.e., scoring at the 75th percentile or higher for two out of three years) was associated with boys' escalation to more serious and varied kinds of delinquency. Depressed mood at age 13.5 years did not affect delinquency trajectories, but depressed mood averaged across adolescence was associated with a significantly slower decline in delinquency across time. This is similar to Curran and Bollen's (2001) results in which higher depressed mood from ages 8 to 14 years was associated with faster growth in antisocial behavior across that period. Perhaps associations between stable depressed mood and delinquency in early adolescence are manifested in later adolescence as a retardation of the usual deceleration in delinquency in later adolescence. In the later stages of the model proposed by Patterson et al. (1992), depression, involvement with deviant peers, and antisocial attitudes resulting from the disrupted socialization of the antisocial child led to further delinquency (Beyers & Loeber, 2003).

It is pointed out that depressed mood in adolescence may also result in a failure to desist from delinquency.

Beyers and Loeber (2003) showed that a higher number of depressed mood symptoms between the ages of 13.5 and 17.5 years predicted more concurrent delinquency variety, and more delinquency at ages 13.5–17.5 years predicted higher levels of concurrent depressed mood. Neither effect was modified by age, and the findings remained significant after accounting for common risk factors. Higher levels of depressed mood predicted higher numbers of different delinquent activities concurrently, and higher numbers of different delinquent activities predicted higher levels of concurrent depressed mood. However, depressed mood had a robust effect on delinquency trajectories via its effect on the decline in delinquency, whereas delinquency had less robust effects on both baseline and rate of change in depressed mood (Beyers & Loeber, 2003). It is important to note that the effect of concurrent depressed mood on delinquency variety and the effect of concurrent delinquency variety on depressed mood varied significantly across adolescents. On average, concurrent depressed mood and delinquency were positively related, but the magnitude of the positive relation varied across adolescents, and in a minority of adolescents, the problems may be negatively related.

One possible mechanism relating depressed mood to concurrent delinquency is adolescents' experience of shame, which is related to lack of empathy (Eisenberg, 2000). Depressed mood is often accompanied by self-focused cognitions, such as "unrealistic negative emotions of one's worth" (American Psychiatric Association, 1994, p.132) and the tendency to attribute negative events to personal flaws. The negative self-evaluation

and devaluation of the self that tend to accompany depressed mood are also central to definitions of shame (Ferguson & Stegge, 1998). Shame has also been associated directly with externalizing problems. Tangney, Miller, Flicker, and Barlow (1996) found that across all ages, shame proneness was related to maladaptive responses to anger, including malevolent intentions and direct and indirect aggression. Another explanation is that delinquency serves as a coping strategy for individuals who are confronted with stress (Agnew, 1992; Kaplan, 1980). However, the argument that delinquency is a coping mechanism focuses primarily on the short-term relationship between delinquency and psychological problems. Hagan (1997) demonstrated that although adolescent delinquency may temporarily serve as an effective coping strategy, it ultimately increases the chances of mid-life depression.

With regard to clinical studies related to depression, decades of clinical and criminological research have revealed that offenders experience more than their share of depressed feelings (Hagan & Foster, 2003; Moffitt et al., 2001; Robins, 1966). Psychological and psychiatric studies consistently find moderate synchronous relationships between antisocial behaviors and depressive symptoms throughout adolescence and into adulthood (Angold & Costello, 2001; Overbeek et al., 2001). Sociological and criminological studies have also revealed a positive offending–depression relationship among large, nationally representative samples, although these studies typically focus on the longitudinal co-occurrence of the two conditions (De Coster & Heimer, 2001; Hagan, 1997; Hagan & Foster, 2003). Although findings on the cross-sectional link in the US are inconsistent, De Coster and Heimer's analyses (2001) of the National Youth Survey revealed a moderate positive synchronous relationship, but

Hagan's study (1997) of Canadian youths in suburban Toronto did not obtain similar results. These studies indicated that participation in delinquency generated depressed feelings years later. Possibly juvenile delinquency may set the stage for later depression by sabotaging the successful development of youths. Additionally, exposure to adverse life events may be one mechanism that puts antisocial youth at increased risk for depressed mood. Indeed, negative life experiences contribute independently to risk for depression, although the relationship is recognized to be complex (Kendler & Karkowski-Shuman, 1997; Kim, Conger, Elder, & Lorenz, 2003; Patton, Coffey, Posterino, Carlin, & Bowes, 2003). Whereas some life events are independent of the individual's own actions, this evidence also suggests that antisocial lifestyles could result in consequences such as school failure, discordant relationships or job losses that constitute just the type of stressful life experiences known to increase risk for depression. The finding pointed out that this route was likely to be a significant factor for males and perhaps also applies to youth who show delinquency (Rowe et al., 2006).

Interestingly, in the present study depressive symptoms related to using weapons led to a higher risk of violent behavior. For example, students with depression were more likely to engage in violent behaviors (used a weapon to get money), being offenders (threatened with weapons), and being direct victims (been injured with weapons), (ORs of 2.06, 1.76, and 2.38 respectively). The strong overlaps between antisocial behavior and depressed mood in adolescence have been reported for many years (Rowe et al., 2006). In terms of witnessing, males reported significantly higher rates of seeing someone chased, threatened, hit by a nonfamily member, beaten/mugged, stabbed, or wounded and being exposed to guns/knives as weapons, gunfire, and dead bodies.

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Similarly, victimized males reported significantly higher rates of being chased, threatened, hit by nonfamily member, beaten/mugged, stabbed, and shot (Scarpa, Haden, & Hurley, 2001).

Previous psychological studies have noted that depressed males may be more likely to suffer peer rejection than depressed females (Joiner, 1996), so males' depression may increase their risk of offending because of its effects on social interactions. That is, males who are depressed may be more likely to be shunned or avoided than depressed females, because it is generally considered less socially appropriate for males to express feelings of sadness or to complain that no one loves them. These socially isolated depressed males may then engage in delinquency as a way to gain some form of attention from their peers. Furthermore, depressed males who are rejected by their peers may be more likely to engage in delinquency because they may have fewer opportunities to learn appropriate social norms and behaviors in a peer group setting (Parker & Asher, 1987). Another possibility is that depressed individuals are more likely to use alcohol and illicit substances than non-depressed individuals (Christie et al., 1988; Kelder et al., 2001) in order to cope with their internal distress (Khantzian, 1997).

From a psychopharmacological point of view, depression is characterized by a deficiency in dopamine activity levels within certain regions of the brain (Kapur & Mann, 1992). Dopamine is a neurotransmitter that is part of the body's reward system. Thus, dopamine deficiency may lead to one feeling unmotivated and "blue". Alcohol and illicit substances have been known to increase levels of dopamine activity within the brain and result in feelings of euphoria or happiness (Spanagel & Weiss, 1999). Indeed, there are the interrelationships between depression, substance use, and delinquency

(Bloom, Owen, & Covington, 2003). In turn, depressed individuals who use alcohol and illicit substances may be more likely to engage in delinquent and criminal behaviors (J. Fagan, Weis, & Cheng, 1990; Harrison & Gfroerer, 1992), which are associated with gun possession and gun assault offenses.

In this study, students with depression were more likely to be indirect victims, especially being left out on purpose which was nearly three times higher than other indirect victim items. Joiner (1996) found that being left out on purpose was the part of peer rejection that led to depression in males. Additionally, longitudinal studies have found bidirectional relations in that children's negative perceptions of peer acceptance/rejection are related to increasing depressive symptoms, and depressive symptoms lead to a decline in perceptions of social acceptance (Kistner, David-Ferdon, Repper, & Joiner, 2006; Rudolph, Ladd, & Dinella, 2007) and a decline in the number of friendships and perceived quality of those friendships (Rudolph et al., 2007). Mutual friendships are important dyadic aspect of peer relationships, so children who were victimized by the peer group showed more externalizing, attention dysregulation, and immature/dependent behavior two year later (Schwartz et al., 1998). That is, indirect victims who are rejected by peers are likely to suffer greatly from psychosocial problems which probably exacerbate the effects of indirect victimization. One possibility is that depressed students who are victimized by their peers are more likely to engage in delinquency (Parker & Asher, 1987), so they are likely to witness violent situations such as gang fights or someone threatened with weapons while participating in delinquent peer groups.

In sum, the findings strongly support the hypotheses that delinquent behaviors, whether involving offenders, direct or indirect victims, or witnesses, are strongly associated with anger-out and depression, but anger-control is protective against delinquent behaviors. Anger, which is a component of negative affect, is often associated with aggression (Novaco, 1976; Tangney et al., 1996). Boys are assumed to have more experience and expression of anger than girls and to have less anger control, so they are more inclined to express anger outwardly. That is, boys are more likely to be involved in any type of violent behaviors for both major delinquency (e.g., major theft, aggression, vandalism, and encounters with the law) and minor delinquency (e.g., oppositional behavior, school deviance, minor theft, and risky sexual behavior) as well as indirectly through an association with delinquent peers. Additionally, anger and depression are strong predictors of delinquent behaviors including violent behavior.

Children who are excessively reactive and overly expressive with their anger are more likely than others to exhibit both externalizing problem behaviors (delinquent) and internalizing problem behaviors (depression). There are several possible explanations for this, such as shame, and stressful life events. The important of shame is that it can endanger a deviant identity that reinforces deviant behavior consistent with the self-view (Becker, 1973). Disintegrative shaming, whereby an individual's whole self is seen as bad, in combination with social rejection is likely to lead to association with deviant peers and to delinquent and criminal behaviors (Ahmed & Braithwaite, 2004), and shame itself is a negative self-evaluation and devaluation of the self that contributes to depressed mood. Thus, shame may be a causal factor in delinquency behaviors and depression.

When considering other possible mechanisms for the depression and delinquency relationship it is possible to speculate that: (1) social structural positions influence the chances that youths are exposed to stressful events; (2) exposure to stressful events, in turn, triggers law violation and depressive problems during adolescence; (3) adolescent law violation and depressive problems subsequently shape social support and identities; and (4) social support and identities ultimately influence both crime and depression in early adulthood (see De Coster & Heimer, 2010). Unfortunately, this current study could not assess these hypotheses, but this model seems reasonable.

In this study, the school domain factors assessed by the CTC-Youth Survey were shown to act as protective factors for violent behaviors. These included commitment to school, school opportunities for prosocial involvement, and social rewards for prosocial involvement. The theory most widely used to explain the school and delinquency relationship is social control theory. Social control theory states that the school and school experiences serve as social bonds that restrain children and adolescent involvement in delinquency (Hirschi, 1969). There are four elements of the social bond: attachment (caring about others and what others think), commitment (commitment to educational values), involvement (participating in school-related activities), and belief (accepting school rules and school authority as fair). These elements of the social bond work to build a stake in conformity and thus limit involvement in normatively unconventional activities.

Several studies have found that poor educational achievement and academic failure are most strongly and consistently linked with delinquency (M. R. Gottfredson & Hirschi, 1990; P. Jenkins, 1997; Maguin & Loeber, 1996; Zingraff, Leiter, Johnson, &

Myers, 1994). Nevertheless, the strength of the bond between students and their schools and teachers is an important barrier to deviation toward delinquency, and students who do not like school or teachers are more likely to report delinquency than those who are more strongly attached to their teachers and schools (Hindelang, 1973; Jensen, Erickson, & Gibbs, 1978). Additionally, school environments having features and elements tailored to the special needs of adolescence's various stages are linked to lower levels of student delinquency. That is, students at all grade levels tend to avoid participation in delinquency when the climate at school promotes their increasing participation in decision making (Eccles et al., 1993). The current findings are consistent with prior studies indicating that attachment to school and teachers and school climates discourages nearly 50% of students from engaging in violent behaviors (ORs: 0.47–0.71).

Regarding the peer domain, in the present study nearly all peer-individual domains related to delinquent behaviors, drugs, favorable attitudes toward antisocial behavior or drugs were strong high risk factors for any kind of violent behavior. Adolescents spend a lot of time with their friends, ascribe great importance to their friendships, and appear to be more strongly influenced by friends than at any other age group (Giordano et al., 2006; Warr, 2002). Having delinquent peers is a strong correlate of an adolescent's involvement in delinquent behaviors (Elliot et al., 1989; Thornberry, 1996), while exposure to peer deviance is noted as the main risk factor for more minor property offending (Moffitt, 1993; Moffitt et al., 2001). With drug involvement, drug attitudes and experiences have been shown to vary with a number of individual characteristics, e.g. gender (males are more like to use drugs and support drug use than females), sensation-seeking, general risk willingness, leisure orientation (involvement in

the club scene, for instance), etc. (Danseco, Kingery, & Coggeshall, 1999; Svensson, 2003; Warner, Krebs, & Fishbein, 2008). Obviously, drug use and peer drug use are involved in a reciprocal causal relationship where the individual is affected by his or her friends' drug use and where the attitudes and drug use behavior of the individual equally lead him/her to seek certain types of friends (Haynie, 2005; Krohn, Lizotte, Thornberry, Smith, & McDowall, 1996; Thornberry et al., 1994).

There seems to be a synergy between selection and socialization processes, that is to say young people who are interested in drugs gravitate to like-minded peers and their association with these peers creates further opportunities and pressures to use drugs (Aseltine, 1995). Furthermore, the use of drugs by the young person and his/her friends makes the friend group's attitudes to drugs more positive, which again increases the probability of continued use. Hence, there are causal loops between drug use and association with drug-using friends as well as between drug use, friends' drug use and the individual's and his/her friends' positive attitudes towards drugs (Haynie, 2005; Krohn et al., 1996; Thornberry et al., 1994). Several studies have shown that adolescent drug use may be associated with school failure (Ensminger & Slusarcick, 1992; Rhodes & Jason, 1990), increased delinquent activity (Office of National Drug Control Policy, 1994), adolescent pregnancy, violence and homicide, later unemployment, disruption of family life, suicide, and other health risks (A. J. Dawkins & Dawkins, 1983; Emshoff, Avery, Raduka, Anderson, & Calvert, 1996; Segal & Stewart, 1996). The current findings are, therefore, consistent with previous studies showing that all risk factors of peer domains are strongly related to any kind of violent behaviors. In particular, the high levels of involvement with substance use increase the rate of offending, the severity of

the committed offence, and the duration of antisocial behavior (Greenwood, 1992; Lipsey & Derzon, 1998; Sealock, Gottfredson, & Gallagher, 1997).

On the other hand, high moral standards were not identified as protective factors against violent behavior in the study. Morals are social rules and norms intended to guide the conduct of people in a society (Gyekye, 1996). Personal experiences facilitate children's moral development (Piaget, 1965), and factors such as affect (Gilligan, 1982; Humphries, Parker, & Jagers, 2000), spirituality (Hines & Boyd-Franklin, 1982), and social interactions (Gyekye, 1996; Thomas, 1997) influence the development of moral reasoning. Garmezy's (1983) longitudinal study showed that religious faith was the personal characteristic most likely to keep at-risk youth out of trouble. Additionally, a major difference between disadvantaged adolescents who were exemplars of prosocial behavior and those who were frequently antisocial was the presence of a strong spiritual sense (Hart, Yates, & Fegley, 1995). Indeed, moral beliefs play a part in shaping a young person's social behavior when the young person begins adopting those beliefs as a central part of his/her personal identity.

In the present study moral beliefs could not prevent students from being involved in violence. One explanation for this finding is that moral beliefs are not well developed in Thai youths. Urbanization in Thailand has had a great impact on the social fabric of society, especially traditional value systems and family relations. Parents do not have time to monitor children or to teach them what they should do or what is wrong. This may coexist with a lesser emphasis on morality in schools and fewer role models to persuade students to adopt Buddhist practices. Nevertheless, individuals who are committed to religion tend to select peers with similar beliefs and conventional values.

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Through positive reinforcement, religion can further deter crime (Baier & Wright, 2001; Burkett & Warren, 1987). The information from the cross-sectional survey showed that students had had few opportunities in their lives to participate in religious activities in Buddhist temples. Thus, religion does not appear to exert a deterrent effect on delinquent behavior or crime.

Regarding the community domain, two domains (perceived availability of drugs and community disorganization) were strongly related to the items involvement in a gang fight and attacking someone with weapons. Consistently, empirical research has shown that low attachment to the neighborhood, availability of drugs, neighborhood adults involved in crime, and lack of enforcement of anti-violence laws are risk factors for later youth violence (Herrenkohl et al., 2000). In addition, perceived neighborhood danger promotes dysfunctional defensive responses such as weapon carrying and fighting behaviors as self-protection (Colder, Mott, Levy, & Flay, 2000). Specifically, it has been pointed out that disadvantaged, disorderly, and decaying neighborhoods foster an environment in which deviance becomes widespread (Sampson & Lauritsen, 1994). One possibility is that "the community context may have an important indirect influence on early onsets through its potential impact on the development of individual dispositions, and particularly, aspects of the individual social situation (family, school, peers) related to serious offending" (Wikström & Loeber, 2000, p. 1134).

Regarding the family domain, there were histories of antisocial behaviors, favorable attitudes toward drug use and antisocial behavior, and family conflict, all of which are high risk factors for violent behaviors. The vital functions families play in the socialization of children include sanctioning, modeling, monitoring, teaching prosocial

beliefs and attitudes, the establishment of a safe and supportive home environment, the inculcation of a religious and/or cultural heritage, and the provision and modeling of trusting and loving relationships. Poor parenting practices, ineffective monitoring, and lack of family connectedness and parental support have been identified as risk factors for youth violence (Dalhberg, 1998; Resnick et al., 1997; Zimmerman, Steinman, & Rowe, 1998). This implies that family functions play an important role in protecting against delinquent behavior in youth, especially family attitudes.

By contrast, lack of family cohesion, family attitudes toward drug use and antisocial behavior were strongly related to violent behavior. This is consistent with results from a previous study showing that strong parental attitudes acknowledging the need to fight were also related to youth behavior problems, school suspension, fighting, and weapon carrying (Solomon, Bradshaw, Wright, & Cheng, 2008). Consequently, youths generally exhibit attitudes and display behaviors (e.g., relationship and intimacy skills and attitudes) that are often consistent with learning that occurred in their families (Bowen, 1978). The powerful learned family dynamics are typically passed from one generation to the next, even if a member of the new generation is not in current contact with the previous one (Fenell & Weinhold, 1989).

Conversely, the items related to protective factors (family reward for prosocial involvement, family attachment, and family opportunities for prosocial involvement) were not (statistically) significantly different for protection against violent behaviors, apart from forcing someone to have sex. Prosocial involvement is conceptualized as helping, cooperating, sharing and caring, or taking responsibility for another (Radke-Yarrow, Zahn-Waxler, & Chapman, 1983), and represents the attitudinally based

tendency to consider the interests of others during social interactions (Eisenberg & Fabes, 1998). Interpersonal relationships with peers and adults (e.g., teachers, parents) are able to encourage adolescents' prosocial behaviors by providing cognitive and emotive developments (Carlo, Eisenberg, & Knight, 1992; Carlo, Fabes, Laible, & Kupanoff, 1999; Fabes, Carlo, Kupanoff, & Laible, 1999). In particular, parents play an important role in promoting and fostering prosocial behaviors in their children and adolescents. Warm parent–child relationships, which are conceptually related to secure attachment relationships, are hypothesized to facilitate emotional sensitivity, perspective taking (i.e., awareness and understanding other people's situations), and prosocial behaviors (Barnett, 1987; De Wolff & van Ijzendoorn, 1997). Nevertheless, this study found that even high family attachment or high reward opportunities for prosocial involvement could not deter students from engaging in violent behavior.

Asian collectivism may explain why the results of this study differed from others. Parents from societies noted for collectivism emphasize the important of following group norms, obeying group authority, enhancing group honor, and strengthening group harmony rather than expressing individual autonomy (Agnew, 1990). Asian American parents consciously discourage assertive and aggressive behaviors that are disrespectful of parental authority (Ou & McAdoo, 1993; Yue, 1993). It is a cultural mandate that children submit to parental authority and control without question (Lin & Liu, 1993; Yamamoto & Wagatsuma, 1980). This implies that most Asian families display parental control as seen in the degree of strictness, behavioral rules, and expectations imposed on children by parents. However, excessive parental control is negatively linked to prosocial behaviors (Eisenberg, Fabes, & Spinrad, 2006), even though youths have high

attachment to family and get rewards or opportunities for prosocial involvement from parents.

In conclusion, the research has supported the hypothesis that being exposed to risk factors was more likely to result involvement in violent behavior, while the hypothesis relating to exposure to protective factors was rejected. Additionally, risk factors related to drug use in peers, family, and community domains have a stronger effect on violent behavior. The use of drugs at an early age has been shown to be a risk factor for future drug problems and may be implicated in school failure (Ensminger & Slusarcick, 1992; Rhodes & Jason, 1990), increased delinquent activity (Office of National Drug Control Policy, 1994), adolescent pregnancy, violence and homicide, later unemployment, disruption of family life, suicide, and other health risks (A. J. Dawkins & Dawkins, 1983; Emshoff et al., 1996; Segal & Stewart, 1996). Higher levels of involvement with substance use increase the rate of offending, the severity of the committed offense, and the duration of antisocial behavior (P. W. Greenwood, 1992; Lipsey & Derzon, 1998; Sealock et al., 1997). Conversely, protective factors such as morality and prosocial activities are not sufficient to prevent youth from engaging in delinquent behavior. Urbanization, the rapid change in the socioeconomic environment, and industrialization have had a strong impact on social structures in Thailand, particular in family relationships. Parents no longer have time to look after their children, leading to much parent–child conflict in families and less time engaged in religious activities. Consequently, youths with poor moral development spend considerable time with delinquent friends, using illicit drugs, and becoming involved in personal or gang fighting.

Preventing school violence should be demonstrated at both individual and school levels. Interventions at the individual level should address not only on targeting high-risk youth but also on the interaction between at-risk youth behaviors and their developmental environment. Similarly, interventions at the school level should not be confined to a narrow emphasis of high-risk youth or to the development of extensive practices (e.g., universal strategies) that may not be responsive to the particular needs of a youth with problems. Alternatively, the comprehensive services provided in school to prevent school violence should go beyond the universal, selective, and indicated levels, and should apply a developmental science framework to assist collaborative assessment and intervention. A comprehensive response to violence is a combined process that not only protects and supports victims of violence, but also promotes non-violence, reduces the perpetration of violence, and changes the circumstances and conditions that generate violence in the first place (WHO, 2002).

9.2.   Findings from the Intervention Study

The objectives and hypotheses for the intervention study were:

Objectives

1. To compare two programs (ART and MM) for reducing anger expression.

2. To assess the outcomes (violent behaviors, anger and depression) of implementing ART and MM in technical colleges.

Hypotheses

1. *Hypothesis 1.* After completion of ART, self-reported rates of anger, depression and violent behaviors will be reduced when compared with controls.

2. *Hypothesis 2.* MM will reduce self-reported rates of anger, depression and violent behaviors compared with controls.

In the intervention study the quantitative data did not suggest that there were marked changes in emotions or delinquent behavior (violence, offenders, direct and indirect victims, and witnesses) when the intervention groups were compared with the no-intervention control group. This may have been a result of difficulties in matching the groups prior to intervention. The control group had lower mean scores than both intervention groups on pre- and post-intervention measures. Unfortunately, control group participants differed in the level of violent behaviors and violence classifications (offenders, direct and indirect victims, and witnesses) and it is likely that this contributed to a lack of findings that are indicative of behavioral change. This is a significant limitation of the study. Consequently, the intervention findings did not show significant differences in interaction tests with most types of violent behaviors, violence classifications (offenders, direct and indirect victims, and witnesses), and negative emotions (anger expressions and depression). Nevertheless, the effectiveness of interventions could be seen through changes over time, particularly in offenders and victimization.

According to MM, mindfulness has its roots in Theravada Buddhism, where it is known as *sattipatan vipassana* (Gunaratana, 2002), which is common practiced in Thailand. Instruction in mindfulness meditation is a simple process that places one's awareness on breathing, and thoughts, emotions, and sensations that arise are allowed to pass by. When one becomes aware of being lost in the content of mind-thoughts, emotions, and internal mental chatter, then attention is gently returned to the object of attention (breath) until awareness is stabilized. Several findings have shown that meditation has been useful in reducing anger (Dua & Swinden, 1992) and anxiety (Kabat-Zinn et al., 1992). The results of the current study are inconsistent with prior studies in that anger-out expression was higher in the MM intervention group (31.3%) than in the control group (15.6%), particularly at three months post-intervention. However, compared to the same group, there was not a large difference in the numbers with high anger-out levels between pre-intervention (27.5%) and three months post-intervention (31.3%).

In the MM group the number of students with depression declined from pre-intervention (17.5%) to one month post-intervention (10.3%) but then depressive expression increased to nearly the same level as the control group (28.1%) at three months post-intervention (data not shown). A possible explanation for the results is a resistance to treatment because students have been instructed in daily meditation practice since starting in elementary school (Office of Education Council, 2004). Participants may have thought that they already knew how to meditate and what they should gain from meditation, leading them to create psychological barriers and loss of motivation. A previous study found consistently that treatment resistance was significantly lower

among offenders who had volunteered for treatment (Shearer & Ogan, 2002). However, it cannot be presumed that MM is not effective in reducing violent behavior and negative emotions (anger and depression). The quantitative study showed that there were reduced rates of violent behavior (involved in a gang fight and attacking someone with a weapon), offender behavior (having yelled at someone), and direct victim behavior (being yelled at and being pushed) post-intervention. Additionally, the qualitative study clearly suggested that the MM intervention was effective in psychological self-improvement (calmness, self-awareness, and morals).

The ART (Aggression Replacement Training) program is a manual-based treatment program that consists of three parts: social competence training, moral education, and aggression control. According to meta-analyses, treatment programs with multiple modules are more successful than those that are directed at only one aspect of youth problems (Dowden & Andrews, 2000), so ART with its focus on several areas has received substantial attention and empirical support in reducing aggressive behaviors in adolescence. The current study showed that high anger-out expression increased from 21.7% pre-intervention to 34.8% at one month post-intervention but at three months post-intervention it had returned to the pre-intervention level. High anger-in levels changed only a little, from 39.1% (pre-intervention) to 34.8% (three months post-intervention). Surprisingly, the number of students with depressive symptoms at one and three months post-intervention was twice (or more) than at pre-intervention (data not shown).

Possible explanations for the ineffectiveness of the ART intervention were the limited length of implementation and the involvement of external factors. ART was conducted for four hours a week for four weeks. Even when adding the time for the two visits this is a shorter period than the usual protocol for conducting the program which is typically three hours per week for ten weeks. Additionally, there were environmental factors (school atmosphere and family problems) that potentially interfered with the effectiveness of intervention (see below in the qualitative study). Nevertheless, the ART program did show some success in reducing all violent behaviors and offender behaviors at three months post-intervention.

9.3.   Qualitative Findings

Following the MM trial, students claimed that they felt calm and had self-awareness leading to more patience. Additionally, they changed their behavior to behave respectfully to parents and friends. When students came into conflict with their parents they no longer responded by yelling or arguing back. Students learned how to behave appropriately to parents, and how to ignore and resist annoyance. They were also able to maintain attention for longer to their work and studies. Some found MM had health benefits, such as reducing migraine headaches and assisting them to sleep well. The aim of MM is to develop calmness and mental relaxation. In the Buddhist tradition, the antidote to anger and aggression is patience, which refers to enduring unwanted or undesirable interference without aggression. During mindfulness training, participants learn to reduce arousal through breathing and relaxation exercises and to bring an openness and acceptance to their emotional experiences.

Reductions in negative affectivity and volatility in response to aversive visual stimuli (Arch & Craske, 2006) or emotionally provocative events (Broderick, 2005) have been reported with the induction of a mindfulness state. In clinical research, this approach has been shown to prevent relapse into depression (Teasdale et al., 2001) and to improve emotional regulation and impulsive behavior in patients with borderline personality disorder (Bohus et al., 2004). Consistently, participants in the study stated they had developed tolerance and could ignore annoying friends although they did not show reduced levels of anger-out and depression on self-report measurement. People who meditate until they develop careful awareness of their own thoughts and feeling without judging and changing may find the practice promotes calmness and attainment of insight (Kabat-Zinn, 2005). Thus, participants started to realize what the right (good) or wrong (bad) actions were, and what they should do, and this may have contributed to their willingness to turn around from mistakes in the past and to behave properly, particularly to parents. Moreover, Buddhist teaching on the role of parental nurture and consequences of doing bad things (physical fighting and using substance abuse) may provide synergistic impacts with meditation to modify participants' cognitions, thus leading to behavior change.

With regard to increasing attention, in meditation participants are asked to pay attention to their breathing and bring their attention to the present moment throughout the session and this contributes to improving the efficiency of executive attention (Tang et al., 2007). This potentially strengthens neuron circuitry in the brain involving the anterior cingulated and prefrontal cortex (Cahn & Polich, 2006) associated with attention, concentration, and emotion regulation (Creswell, Eisenberger, & Lieberman, 2005;

Creswell, May, Eisenberger, & Lieberman, 2007). Meditation also contributes to decreased blood pressure (de la Fuente, Franco, & Salvator, 2010), decreased breathing rate (Lazar et al., 2005), and decreased muscle tension (Benson, 2000) resulting from parasympathetic stimulation.

At three months post-intervention, MM was still providing benefit to participants, including calmness, mental relaxation and self-awareness. There were external factors involving students' lives, such as family problems and school atmosphere, which led to regression to bad behavior (drinking alcohol and going back home late at night). The family is a primary setting for social development and is the most influential social context during childhood (Parke & Buriel, 1998). Therefore, the quality of family relationships might contribute importantly to negative developmental trajectories leading to inappropriate behavior (substance abuse and going back home late at night). Elevated levels of parent–child conflict (frequency of conflictual interactions) and poor-quality family relations (degree of trust, warmth, fun, and togetherness) contribute to the development of conduct problems and depressive symptoms (S. R. Jenkins, Goodness, & Buhrmester, 2002; Olson, Bates, Sandy, & Lanthier, 2000; Sheeber, Hops, & Davis, 2001; Sheeber & Sorensen, 1998). The current findings are consistent with these studies and showed that when participants had family problems or parent–child conflict they turned to drinking to cope with their problems and tried to avoid family conflicts by going back home late at night.

Schools are able to offer an environment rich in prosocial activities, norms favorable to conformity, and opportunities to pursue relationships which can result in higher levels of social adjustment and fewer problem behaviors (Carnegie Council on

Adolescent Development, 1995; Roeser et al., 2000). The school environment requires appropriate organizational features, activities and other opportunities to motivate students and promote learning while discouraging problem behaviors (Eccles et al., 1993). In this study, students felt bored with much homework and the school environment, and they dealt with negative emotions by gathering with friends and drinking.

Students in the ART intervention were able to calm themselves down by ignoring or avoiding annoyance, they felt more empathy to other people and thought carefully before making any decision in their lives. Nevertheless, at three months post-intervention some of their friends had dropped out or been expelled from the college, so they felt bored with school and were lonely. The ART curriculum is designed to support the development of social skills among aggressive children using combination of interventions including skills training, anger management, and moral education (Glick & Goldstein, 1983; Goldstein, Glick, & Gibbs, 1998). There are several studies supporting the effectiveness of ART in reducing acting-out and impulsiveness among youth (Goldstein & Glick, 1987), significant reductions in re-arrest rates for youth from a correctional facility, and for arrest rates of gang members (Goldstein and Glick, 1994a, 1994b). Although the self-report data post-intervention did not show significant reductions in anger levels, the post-intervention semi-structured interviews highlighted this issue. Apparently, students were able to calm themselves when they were bullied by fellow students, and their moral awareness also developed while attending the program. They clarified information carefully and were concerned about the consequences of doing wrong. However, friends dropping out or being expelled from the college because of family problems or delinquency contributed to their emotional distress. As mentioned

in the pilot study, students in technical colleges build up strong relationships with friends as a kinship. When they could not prevent their friends from suffering they developed emotional distress. Students felt bored about coming to school and did not want to attend class. It appears that the ART program structure could not address these issues, and the prevalence rates of depression went up from 28.1% (pre-intervention) to 39.1% (three months post-intervention).

In summary, the study provided some support for the hypothesis that increasing anger control after attending intervention trials is associated with a reduction in violent behaviors, although randomized allocation to a control group is required to establish how robust these findings are. The hypothesis related to the reduction of self-reported anger and depression was not clearly supported by the interventions (MM or ART). It is concluded that program interventions such as MM and ART are not fully successful in reducing anger levels, but may be partially effective in controlling students' anger expression and fostering moral development by encouraging students to thinking carefully about the consequences of their behavior. It seems that MM may be more effective than ART in developing self-awareness and increasing morality. Nevertheless, it could be argued that this is attributable to the different implementation of the two programs. Students spent eight hours a day for 15 consecutive days learning MM, while the ART intervention involved four hours once a week for three weeks.

Additionally, the efficacy of the programs in relation to reducing anger expression is not clearly noticeable. Not all students had high anger levels, although approximately 25% of students had high anger levels in the intervention groups. Multiple factors contributed to reduce the efficacy of interventions, including family problems and

school environments which interfere with youths' lives in many ways and are strongly related to delinquent behaviors. It is interesting to note that depression is strongly related to high levels of all types of violent behaviors, as shown in several previous studies. Therefore, effective interventions need to address depression, not only anger expression, as a treatment target.

9.4.   Policy Implications

Multidisciplinary teams across various sectors and consistent strategies are necessary to prevent youth violence in society. Unfortunately, there is a lack of fundamental structure in low and middle income countries in order to build up such teams. Police reports are usually considered as a routine operation and a bureaucratic duty. Additionally, other sectors related to health and crime are not able to distribute information to each other as a response to improve violence strategies. Therefore, the powerful national focal strategies to prevent youth violence are still limited (Meddings et al., 2005).

In the US, there are five steps for effective planning to reduce school violence, selection and implementation strategies including needs and assets assessment, planning group and initial planning activities, strategy adaptation, strategy implementation, and evaluation (Greene, 2005). The first step of needs assessment requires the best information which derives from self-report surveys. Ideally, schools should use standardized, normed, and developmentally appropriate surveys that are designed for gathering data from students. Additionally, qualitative study (focus groups or semi-structure interviews) is needed to provide important supplemental data on the specific dynamics and contexts of school-based violence and program intervention (Devine,

1996; Stephens, 1998). For instance, qualitative data can classify motivation for aggressive behaviors (usually some forms of retaliation), areas of the school determined as unsafe, peer group dynamics and hierarchies related to intimidation, harassment and fighting, peer norms, and negative emotions associated with violence (J. Fagan & Wilkinson, 1998; Lockwood, 1997; Rich & Stone, 1996).

It could be claimed that Thailand is lacking information about the original causes of school violence in technical colleges, why the prevalence of school violence among technical colleges is higher than in normal schools, and what is the best way of solving the problem. Even though there are some Masters' theses addressing technical college problems, they are often methodologically unsound and the data are unpublished. Successful planning groups depend on several factors, such as energetic leadership, competent staff members and representation from school boards (Elliott & Mihalic, 2004; Mihalic et al., 2004; Violence Institute of New Jersey, 2001). There are collaborative teams in each zone of Bangkok created by the Vocational Education Commission to look after technical colleges' problems but these groups lack effective leaders and proficient members, and have no obvious strategies from school boards. Although groups have invited stakeholders (police officers, community leaders) to participate in order to increase institutional capacity, the problems they face cannot be minimized. These teams could not create strategies to reduce the prevalence or incidence of physical fighting among technical colleges in Bangkok. The incidence of fights and number of students injured in fights are still high.

With regard to strategy adaptation and implementation, the Vocational Educational Commission has implemented strategic plans, such as sending delinquent

students to boot camps and setting up social activities among technical colleges, but it clear these have not achieved effective outcomes given the high incidence of fighting and deaths during fights. Additionally, there are many public debates related to military camps. Furthermore, it is claimed that the evaluative process for any strategic plan is yet to be developed. Thailand needs more research to provide basic information in order to understand the etiology of each form of violence and develop effective intervention programs to prevent violent behavior or reduce its prevalence. The research should cover every aspect of school violence, including individual and external factors (families, schools, communities, peers), psychological factors (aggression, anxiety, depression, etc.), and programs to prevent or reduce school violence. This step is vital for developing knowledge capacities, and will also create thinking among policy makers, practitioners, and researchers on how to study the co-occurrence of these forms of violence.

With program interventions, the problems involved in designing program trials for violence prevention in developing countries stem from limited existing information concerning the causes, maintenance, and outcomes of violence in different target groups (Orpinas, Murray, & Kelder, 1999). In many cases in which youth violence presents as an immediate danger, it may be impractical to do extensive pilot research.

Action research (sometimes called "participatory action research") is one possible way of addressing many of the problems that arise in the cross-cultural adaptation of interventions. Action research is a multidisciplinary approach to designing and executing interventions in partnership with the recipients of the intervention (D. J. Greenwood, Whyte, & Harkavy, 1993). The core values of action research include (a) collaborating with the communities who will be the focus of the intervention, (b) incorporating local

knowledge concerning the problem being addressed by the intervention, (c) embracing eclecticism and diversity, and (d) recognizing the uniqueness of each situation and adjusting the intervention efforts according to the community's perspective (Orpinas et al., 1999). Action research approaches may be particularly valuable in the area of child aggression because of the importance of contextual factors. Nevertheless, all successful interventions have been developed in Western countries, so the theoretical and practical applications of those interventions may require modification for non-Western clients.

There are numerous challenges inherent in the export of psychological interventions to non-Western cultures including (a) differences in cultural norms and traditions, particularly the norms of communication, (b) differences in interpretation of pathological behavior, (c) cultural prejudices against mental health professionals and practices, and (d) difficulties in adapting assessment tools to non-Western environment (Bernal & Saez-Santiago, 2006; Dumas, Rollock, Prinz, Hops, & Blechman, 1999; Zaya, Torres, Malcolm, & des Rosiers, 1996). Even though Mindfulness Meditation has its roots in Buddhist philosophy, it does not follow that it will necessarily be effective in Buddhist countries like Thailand. There are several factors involved in the efficacy of program interventions including validity and reliability of self-reports, and the sensitivity and coverage aspects of self-report measures. For instance, reliability and validity of assessment devices are important because invalid and unreliable assessment instruments provide useless information about treatment effectiveness. Additionally, there are many physiological responses that can be used to assess anger-prone persons, but no research has investigated the possibility that anger-prone persons may be more susceptible or sensitive to the effects of anger physiology. The self-report measures of anger and

depression experiences may not provide the most useful information for understanding and treating anger and depression because they do not provide separate indices for frequency, intensity, and appropriateness of negative feelings (Edmonson & Conger, 1996). Although the intervention programs have obstacles to successful outcomes, they are likely to be more effective than doing nothing. Even if the intervention provides no benefits, it does not actually harm participants.

9.5. Limitations of the study

This study had several limitations. First, some college teachers and college boards tried to ignore the truth that much violence happens in technical colleges and did not co-operate fully with the cross-sectional survey. There were five self-report questionnaires to complete within 45 minutes, but some college teachers did not allow enough time for this to be done properly. Next, observation suggested that students could not maintain their attention to do self-report measures over a longer period of time. Boredom set in and they stated that they did not want to participate in the study although they had previously signed consent forms. Second, there were a lot of student absences on the survey day even though a follow-up was arranged one week after the survey. Third, in the intervention process, it was difficult to find out which colleges were willing to participate in the intervention activities because college teachers are not required to undertake extracurricular activities as part of their job. While running programs in the semester, the length of time available was limited because students have classes all day from 9.00 a.m. to 5.00 p.m. There were also difficulties when the programs were conducted in the semester break. College boards were concerned about students' safety going to and from colleges, while some students were supposed to undertake part-time or

casual work during that time. Fortunately, the research could pass through the difficulties

with all limitations. Thus, future studies need to take these factors into account before

conducting research related to youth violence or other sensitive topics in Thailand.

References

Adler, P.A., & Adler, P. (1998). *Peer power: Preadolescent culture and identity*. New Brunswick, NJ: Rutgers University Press.

Agnew, R. (1985). A revised strain theory of delinquency. *Social Forces, 64*, 151–167.

Agnew, R. (1990). The origins of delinquent events: An examination of offender accounts. *Journal of Research in Crime and Delinquency, 27*, 267–294.

Agnew, R. (1992). Foundation for a general strain theory of crime and delinquency. *Criminology, 30*, 47–87.

Agnew, R. (2006). *Pressured into crime: An overview of general strain theory*. Los Angeles: Roxbury.

Agnew, R., & Brezina, T. (1997). Relational problems with peers, gender, and delinquency. *Youth & Society, 29*, 84–111.

Agnew, R., Brezina, T., Wright, J. P., & Cullen, F. T. (2002). Strain, personality traits, and delinquency: Extending General strain theory. *Criminology, 40*, 43–71.

Agnew, R., & White, H. R. (1992). An empirical test of general strain theory *Criminology, 30*, 475–499.

Ahmed, E., & Braithwaite, V. (2004). 'What, me ashamed?' Shame management and school bullying. *Journal of Research in Crime and Delinquency 41*, 269–294.

Akiba, M., Le Tendre, G. K., Baker, D. P., & Goesling, B. (2002). Student victimization: National and school system effects on school violence in 37 nations. *American Educational Research Journal, 39*, 829–853.

Alexander, R. Jr., & Langford, L. (1992). Throwing down: A social learning test of
    student fighting. *Social Work in Education, 14*, 114–124.

Allensworth, D., & Kolbe, L. (1987). The comprehensive school health program:
    Exploring an expanded concept. *Journal of School Health, 57*, 409–412.

Aluede, O., Adeleke, F., Omoike, D., & Afen-Akpaida, J. (2008). A review of the extent,
    nature, characteristics and effects of bullying behaviour in schools. *Journal of
    Instructional Psychology, 35*, 151–158.

American Association of University Women Educational Foundation. (2001). *Hostile
    hallways: Bullying, teasing, and sexual harrassment in school*. New York:
    Author.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental
    disorders* (4th ed.). Washington, DC: Author.

American Psychiatric Association. (2000). Practice guideline for the treatment of patients
    with major depressive disorder (revision). *American Journal of Psychiatry, 157* ,
    1–45.

Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review of
    Psychology, 53*, 27–51.

Ando, M., Asakura, T., & Simons-Morton, B. (2005). Psychosocial influences on
    physical, verbal and indirect bullying among Japanese early adolescents. *Journal
    of Early Adolescence, 25*, 268–297.

Andrews, L., & Trawick-Smith, J. (1996). An ecological model for early childhood
    violence prevention. In R. L. Hampton & P. Jenkins (Eds.), *Prevention of*

violence in America. Issues in children's and families' lives (pp. 233–261).

Thousand Oaks, CA: Sage.

Angold, A., & Costello, E. J. (2001). The epidemiology of disorders of conduct: Nosological issues and comorbidity. In J. Hill & B. Maughan (Eds.): *Conduct disorders in childhood and adolescence* (pp. 126–68). New York: Cambridge University Press.

Arch, J. J., & Craske, M. G. (2006). Mechanisms of mindfulness: Emotion regulation following a focused breathing induction. *Behavior Research and Therapy, 44*, 1849–1858.

Archer, J. (2000). Sex differences in aggression between heterosexual partners: A meta-analysis review. *Psychological Bulletin, 126*, 651–680.

Archer, J., & Coyne, S. M. (2005). An integrated review of indirect, relational, and social aggression. *Personality and Social Psychology Review, 9*, 212–230.

Aronen, E. T., & Soininen, M. (2000). Childhood depressive symptoms predict psychiatric problems in young adults. *Canadian Journal of Psychiatry, 45*, 465–470.

Arora, C. M. J. (1996). Defining bullying: Towards a clearer general understanding and more effective intervention strategies. *School Psychology International, 17*, 317–329.

Arsenio, W. F., & Lemerise, E. A. (2001). Varieties of childhood bullying: Values, emotion processes, and social competence. *Social Development, 10*, 59–73.

Arthur, M. W., Briney, J. S., Hawkins, J. D., Abbott, R. D., Brooke-Weiss, B. L., & Catalano, R. F. (2002). Measuring risk and protection in communities using the

Communities That Care Youth Survey. *Evaluation and Program Planning, 30*, 197–211.

Aseltine, R. H. (1995). A reconsideration of parental and peer influences on adolescent deviance. *Journal of Health and Social Behavior, 36*, 103–121.

Aseltine, R. H., Gore, S., & Gordon, J. (2000). Life stress, anger and anxiety, and delinquency: An empirical test of strain theory. *Journal of Health and Social Behavior, 41*, 256–275.

Astor, R. A., Meyer, H. A., & Behre, W. J. (1999). Unowned places and times: Maps and interviews about violence in high schools. *American Educational Research Journal, 36*, 3–42.

Averill, J. R. (1982). *Anger and aggression: An essay on emotion*. New York: Springer–Verlag.

Averill, J. R. (1983). Studies on anger and aggression. *American Psychologist, 38*, 1145–1160.

Ayres, R. L. (1998). *Crime and violence as development issues in Latin America and the Caribbean*. Washington, DC: World Bank.

Baer, R. A. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical Psychology: Science and Practice, 10*, 125–143.

Baer, R. A., Smith, G. T., & Allen, K. B. (2004). Assessment of mindfulness by self-report: The Kentucky Inventory of Mindfulness Skills. *Assessment, 11*, 191–206.

Bagley, G. M., & Pritchard, C. (1998). The billion dollar costs of troubled youth: Prospects for cost-effective prevention and treatment. *International Journal of Adolescence and Youth, 7*, 221–225.

Baier, C. J., & Wright, B. R. (2001)."If you love me, keep my commandments": A meta-
analysis of the effect of religion on crime. *Journal of Research in Crime and
Delinquency, 38*, 3–21.

Baldry, A. C. (2003). Bullying in schools and exposure to domestic violence. *Child
Abuse and Neglect, 27*, 713–732.

Bale, T. L. (2006). Stress sensitivity and the development of affective disorders.
Hormones and Behavior, 50, 529–533.

Bandura, A. (1973). *Aggression: A social learning analysis*. Englewood Cliffs, NJ:
Prentice Hall.

Bangkok Post (September 1, 2010). Schoolboy killed in bus shooting. Retrieved from
http://www.bangkokpost.com/news/local/194076/schoolboy-killed-in-bus-
shooting

Barkin, S., Kreitetr, S., & DuRant, R. H. (2001). Exposure to violence and intentions to
engage in moralistic violence druing early adolescence. *Journal of Adolescence,
24*, 777–789.

Barnett, M. A. (1987). *Empathy and related responses in children*. In N. Eisenberg & J.
Strayer (Eds.), *Empathy and its development* (pp. 146–162). Cambridge, UK:
Cambridge University Press.

Barnoski, R. (2002). *Washington State's implementation of aggression replacement
training for juvenile offenders: Preliminary findings*. Olympia, WA: Washington
State Institute for Public Policy.

Baron, S. W. (2004). General strain, street youth and crime: A test of Agnew's revised
theory. *Criminology, 42*, 457–483.

Barrios, L. C., Davis, M. K., Kann, L., Desai, S., Mercy, J. A., Reese, L. E., et al. (2001).

    School health guidelines to prevent unintentional injuries and violence. *Morbidity*

    and Mortality Weekly Report Recommendations and Reports, 50, 1–46.

Bash, A. (2004). Spirituality: The emperor's new clothes? *Journal of Clinical Nursing,*

    13, 11–16.

Bauman, S., & Summers, J. J. (2009). Peer victimization and depressive symptoms in

    Mexican American middle school students: Including acculturation as a variable

    of interest. *Hispanic Journal of Behavioral Sciences, 31*, 515–535.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal

    attachment as a fundamental human motivation. *Psychological Bulletin, 117*,

    497–529.

Baumeister, R. F., Smart, L., & Boden, J. M. (1996). Relation of threatened egotism to

    violence and aggression: The dark side of high self-esteem. *Psychological*

    Review, 103, 5–33.

Baumeister, R. F., Stillwell, A. M., & Heatherton, T. F. (1995). Personal narratives about

    guilt: Role in action control and interpersonal relationships. *Basic and Applied*

    Social Psychology, 17, 173–198.

Beale, A. V. (2001). 'BullyBusters'. Using drama to empower to students to take a stand

    against bullying behavior. *Professional School Counseling, 4*, 300–305.

Becker, H. S. (1973). *Outsiders: Studies in the sociology of deviance*. New York: Free

    Press.

Beirne, P., & Messerschmidt, J. (2007). *Criminology* (4th ed). Oxford, UK: Oxford

    University Press.

Beland, K. R. (1996). A school-wide approach to violence prevention. In R. L. Hampton

    & T. P. Gullotta (Eds.), *Preventing violence in America* (pp. 209–231). Thousand

    Oaks, CA: Sage.

Bell, C. C., & Jenkins, E. J. (1993). Community violence and children on Chicago's

    south side. *Psychiatry, 56*, 46–54.

Benbenishty, R., & Astor, R. A. (2005). *School violence in context: Culture,*

    neighbourhood, family, school, and gender. Oxford, UK: Oxford University

    Press.

Benson, H. (2000). *The relaxation response*. New York: Harper.

Beran, T. (2005). A closer look at the relationship between bullying and behavior

    problems: A syndrome of misconduct. *Exceptionality Education Canada, 15*, 41–

    55.

Bernal, G., & Saez-Santiago, E. (2006). Culturally centered psychosocial interventions.

    Journal of Community Psychology, 34, 121–132.

Berthold, K. A., & Hoover, J. H. (2000). Correlates of bullying and victimization among

    intermediate students in Midwestern USA. *School Psychology International, 21*,

    65–78.

Beyers, J. M., & Loeber, R. (2003). Untangling developmental relations between

    depressed mood and delinquency in male adolescents. *Journal of Abnormal Child*

    Psychology, 31, 247–266.

Bierman, K. L., & Montminy, H. P. (1993). Developmental issues in social-skills

    assessment and intervention with children and adolescents. *Behavior*

    Modification, 17, 229–254.

Birmaher, B., Ryan, N. D., Williamson, D. E., Brent, D. A., Kaufman, J., Dahl, R. E., et al. (1996). Child and adolescent depression: A review of the past 10 years: Part I. *Journal of the American Academy of Child and Adolescent Psychiatry, 35*, 1427–1439.

Bjerregaard, B., & Lizotte, A. J. (1995). Gun ownership and gang membership. *The Journal of Criminal Law & Criminology, 86*, 37–58.

Bjorkqvist, K., Osterman, K., & Kaukiainen, A. (1992). *The development of direct and indirect aggressive strategies in males and females.* San Diego, CA: Academic Press, Inc.

Blackburn, R. (1993). *The psychology of criminal conduct*. Chichester, UK: Wiley.

Blechman, E. A. (1996). Coping, competence, and aggression prevention: II. Universal school-based prevention. *Applied and Preventive Psychology, 5*, 19–35.

Bloom, B., Owen, B., & Covington, S. (2003). *Gender responsive strategies: Research, practice,and guiding principles for women offenders*: Washington, DC: U.S. Department of Justice, National Institute of Corrections.

Bohus, M., Haaf, B., Simms, T., Limberger, M. F., Schmahl, C., Unckel, C., et al. (2004). Effectiveness of inpatient dialectical behavioral therapy for borderline personality disorder: A controlled trial. *Behaviour Research and Therapy, 42*, 487–499.

Bosworth, K., Espelage, D. L., & Simon, T. R. (1999). Factors associated with bullying behavior in middle school students. *The Journal of Early Adolescence, 19*, 341–362.

Bouchard, M., & Spindler, A. (2010). Gangs, groups, and delinquency: Does

organization matter? *Journal of Criminal Justice, 38*, 921–933.

Boulton, M. J., Bucci, E., & Hawker, D. D. (1999). Swedish and English secondary

school pupils' attitudes towards, and conceptions of, bullying: Concurrent link

with bully/victim involvement. *Scandinavian Journal of Psychology, 40*, 277–

284.

Boulton, M. J., & Underwood, K. (1992). Bully victim problems among middle school

children. *British Journal of Educational Psychology of Addictive Behaviors, 62*,

73–87.

Bowen, M. (1978). *Family therapy in clinical practice*. New York: Jason Aronson.

Braaten, S. (1997). *Creating safe schools: A principal's perspective*. New York:

Guilford.

Brennan, P. A., Mednick, B. R., & Mednick, S. A. (1993). Parental psychopathology,

congenital factors, and violence. In S. Hodgins (Ed.), *Mental disorder and crime*

(pp. 244–261). Thousand Oaks, CA: Sage.

Brezina, T. (1996). Adapting to strain: An examination of delinquent coping responses.

Criminology, 34, 39–60.

Brockenbrough, K. K., Cornell, D. G., & Loper, A. B. (2002). Aggressive attitudes

among victims of violence at school. *Education and Treatment of Children, 25*,

273–287.

Broderick, P. C. (2005). Mindfulness and coping with dysphoric mood: Contrasts with

rumination and distraction. *Cognitive Therapy and Research,, 29*, 501–510.

Broidy, L. M. (2001). A test of general strain theory. *Criminology, 39*, 9–33.

Broidy, L. M., Nagin, D. S., Tremblay, R. E., Bates, J. E., Brame, B., Dodge, K. A., et al. (2003). Developmental trajectories of childhood disruptive behaviors and adolescent delinquency: A six site, cross-national study. *Developmental Psychology, 39*, 222–245.

Brown, K. W., & Ryan, R. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84*, 822–848.

Brown, S. L., Neese, R. M., Vinokur, K. D., & Smith, D. M. (2003). Providing social support may be more beneficial than receiving it: Resuts from a prosepctive study of mortality. *Psychological Science, 14*, 320–327.

Bruce, A., & Davies, B. (2005). Mindfulness in hospice care: Practicing Meditation-in-Action. *Qualitative Health Research, 15*, 1329–1344.

Bryant, B. K. (1992). Conflict resolution strategies in relation to children's peer relations. *Journal of Applied Developmental Psychology, 13*, 35–50.

Bulach, C., Fullbright, J. P., & Williams, R. (2003). Bullying behavior: What is the potential for violence at your school? *Journal of Instructional Psychology, 30*, 156–164.

Burkett, S., & Warren, B. O. (1987). Religiosity, peer associations, and marijuana use: A panel study of underlying causal structures. *Criminology, 25*, 109–131.

Cahn, B. R., & Polich, J. (2006). Meditation states and traits: EEG, ERP, and neuroimaging studies. *Psychological Bulletin, 132*, 180–211.

Cairns, R. B., Cairns, B. D., Neckerman, H. J., Ferguson, L. L., & Gariepy, J. L. (1989). Growth and aggression: 1. Childhood to early adolescence. *Developmental Psychology, 25*, 320–330.

Cairns, R. B., & Kroll, A. B. (1994). *Developmental perspective on gender differences and similarities*. Oxford, UK: Blackwell.

Cairns, R.B., & Cairns, B.D. (1994). *Lifelines and risks: Pathways of youth in our time*. New York: Harvester Wheatsheaf.

Callahan, C. M., Rivara, F. P., & Farrow, J. A. (1993). Youth in detention and handguns. *Journal of Adolescent Health, 14*, 350–355.

Campbell, C., & Schwartz, D. F. (1996). Prevalence and impact of exposure to violence among suburban and urban middle school students. *Pediatrics, 98*, 396–402.

Campbell, M. A. (2005). Cyber bullying: An old problem in a new guise? *Australian Journal of Guidance and Counselling, 15*, 68–76.

Capaldi, D. M., & Patterson, G. M. (1996). Can violent offenders be distinquished from frequent offenders? Prediction from childhood to adolesence. *Journal of Research in Crime and Delinquency, 33*, 206–231.

Capaldi, D. M., & Patterson, G. R. (1991). Relation of parental transitions to boys' adjustment problems: I.A linear hypothesis. II. Mothers at risk for unskilled parenting. *Developmental Psychology, 27*, 489–504.

Caplan, M., Vespo, J. E., Pedersen, J., & Hay, D. F. (1991). Conflict and its resolution in small groups of one- and two-year-olds. *Child Development, 62*, 1513–1524.

Capowich, G. E., Mazerolle, P., & Piquero, A. (2001). General strain theory, situational

    anger, and social networks: An assessment of conditioning influences. *Journal of*

    Criminal Justice, 29, 443–461.

Card, N., Stucky, B., Sawalani, G. M., & Little, T. D. (2008). Direct and indirect

    aggression during childhood and adolescence: A meta-analytic review of gender

    difference, intercorrelations, and relations to maladjustment. *Child Development,*

    79, 1185–1229.

Carlo, G., Eisenberg, N., & Knight, G. P. (1992). An objective measure of adolescents'

    prosocial moral reasoning. *Journal of Research on Adolescence, 2*, 331–349.

Carlo, G., Fabes, R. A., Laible, D., & Kupanoff, K. (1999). Early adolescence and

    prosocial/moral behavior II: The role of social and contextual influences. *Journal*

    of Early Adolescence, 19, 133–147.

Carnegie Council on Adolescent Development. (1995). *Great transitions: Preparing*

    adolescents for a new century. New York: Carnegie Corporation.

Carney, R. M., Blumenthal, J. A., Catellier, D., Freedland, K. E., Berkman, L. F.,

    Watkins, L. L., Jaffe, A. S. (2003). Depression as a risk factor for mortality after

    myocardinal infraction *American Journal of Cardiology, 92*, 1277–1281.

Carr, J. L., & Van Deusen, K. M. (2002). The relationship between family of origin

    violence and dating violence in college men. *Journal of Interpersonal Violence,*

    17, 630–646.

Carrigan, T., Connell, R. W., & Lee, J. (1985). Towards a new sociology of masculinity.

    Theory and Society, 5, 551–602.

Carson, J. W., Keefe, F. J., Goli, V., Fras, A. M., Lynch, T. R., Horp, S. R., & Buechler, J. L. (2005). Forgiveness and chronic low back pain: A preliminary study examining the relationship of forgiveness to pain, anger, and psychological distress. *Journal of Pain, 6*, 84–91.

Casey-Cannon, S., Hayward, C., & Gowen, C. (2001). Middle-school girls' reports of peer victimization: Concerns, consequences, and implications. *Professional School Counseling, 5*, 138–148.

Caspi, A., McClay, J., Moffitt, T. E., Mill, J., Martin, J., Craig, I. W., & et al. (2002). Role of genotype in the cycle of violence in maltreated children. *Science, 297*, 851–854.

Catalano, R. F., Arthur, M. W., Hawkins, J. D., Berglund, L., & Olson, J. J. (1998). Comprehensive community- and school-based interventions to prevent antisocial behavior. In R. Loeber & D. P. Farrington (Eds.), *Serious and violent juvenile offenders: Risk factors and successful interventions* (pp. 248–283). Thousand Oaks, CA: Sage.

Catalano, R. F., & Hawkins, J. D. (1996). *The social development model: A theory of antisocial behavior*. New York: Cambridge University Press.

Ceballo, R., Ramirez, C., Heran, K. D., & Maltese, K. L. (2003). Community violence and children's psychological well-being: Does partental monitoring matter? *Journal of Clinical and Adolescent Psychology, 32*, 586–592.

Centers for Disease Control and Prevention. (1996). Youth risk behavior surveillance–United States, 1995. *Morbidity and Mortality Weekly Report, 45,*1–83.

Centers for Disease Control and Prevention. (2000). Youth risk behavior surveillance–

    United States, 1999. *Morbidity and Mortality Weekly Report, 49(ss05)*, 1–96.

Centers for Disease Control and Prevention. (2010). Differences by sex in tobacco use

    and awareness of tobacco marketing–Bangladesh, Thailand, and Uruguay, 2009.

    Morbidity and Mortality Weekly Report, 59, 613–618.

Cernkovich, S.A., & Giordano, P. C. (1992). School bonding, race, and delinquency.

    Criminology, 30, 261–291.

Chen, J. K., & Astor, R. A. (2009). The perpetration of school violence in Taiwan: An

    analysis of gender, grade level and school type. *School Psychology International

    30*, 568–584.

Chopra, D. (1991). *Creating health: How to wake up the body's intelligence*. New York:

    Houghton–Mifflin.

Christie, K. A., Burke, J. D., Regier, D. A., Rae, D. S., Boyd, J. H., & Locke, B. Z.

    (1988). Epidemiological evidence for early onset of mental disorders and higher

    risk of drug abuse in young adults. *American Journal of Psychiatry, 145*, 971–

    975.

Cialdini, R. B., Brown, S. L., Lewis, B. P., Luce, C., & Neuberg, S. L. (1997).

    Reinterpreting the empathy–altruism relationship: When one into one equals

    oneness. *Journal of Personality and Social Psychology, 73*, 481–494.

Clay, D. L., Hagglund, K. J., Kashani, J. H., & Frank, R. G. (1996). Sex differences in

    anger expression, depressed mood, and aggression in children and adolescents.

    Journal of Clinical Psychology in Medical Settings, 3, 79–92.

Coie, J. D., & Dodge, K. A. (1998). Aggression and antisocial behavior. In W. Damon (Ed.), *Handbook of child psychology* (pp. 780–845). New York: John Wiley.

Colder, C. R., Mott, J., Levy, S., & Flay, B. (2000). The relation of perceived neighborhood danger to childhood aggression: A test of mediating mechanisms. *American Journal of Community Psychology, 28*, 83–103.

Coleman, M., Pfeiffer, S., & Oakland, T. (1992). Aggression replacement training with behaviorally disordered adolescents. *Behavioral Disorders, 18*, 54–66.

Conger, R. D., Neppl, T., Kim, K. J., & Scaramella, L. V. (2003). Angry and aggressive behaviour across three generations: A prospective, longitudinal study of parents and children. *Journal of Child Abnormal Psychology, 31*, 143–160.

Connell, R. W. (1987). *Gender and power: Society, the person and sexual politics*. Cambridge, UK: Polity.

Connell, R. W. (1990). *An iron man: The body and some contradictions of hegemonic masculinity*. Champaign, IL: Human Kinetics.

Connell, R. W. (1995). *Masculinities*. Cambridge, UK: Polity.

Connell, R. W. (1996). Teaching the boys: New research on masculinity and gender strategies for schools. *Teachers College Record, 98*, 206–235.

Connell, R. W. (2000). *The men and the boys*. Cambridge, UK: Polity.

Connell, R. W., & Messerschmidt, J. (2005). Hegemonic masculinity: Rethinking the concept. *Gender & Society, 19*, 829–859.

Consortium on the School-Based Promotion of Social Competence. (1994). The school-based promotion of social competence: Theory, research, practice, and policy. In R. J. Haggerty, L. R. Sherrod, N. Garmezy, & M. Rutter (Eds.), *Stress, risk and*

resilience in children and adolescents (pp. 268–316). Cambridge, UK: Cambridge University Press.

Cook, T. D., Murphy, R. F., & Hunt, H. D. (2000). Comer's school development program in Chicago. *American Educational Research Journal, 37*, 535–597.

Cooley, M. R., Boyd, R. C., Frantz, E., & Walsh, J. (2001). Emotional and behavioral impact of exposure to community violence in inner-city adolescents. *Journal of Clinical Child Psychology, 30*, 199–206.

Cornell, D. G., & Loper, A. B. (1998). Assessment of violence and other high-risk behaviors with a school survey. *School Psychology Review, 27*, 317–330.

Corruble, E., Benyamina, A., Bayle, F., Falissard, B., & Hard, P. (2003). Understanding impulsivity in severe depression? A psychometrical contribution. *Progress in Neuro-Psychopharmacology & Biological Psychiatry, 27*, 829–833.

Côté, S., Vaillancourt, T., Barker, E. D., Nagin, D., & Tremblay, R. E. (2007). The joint development of physical and indirect aggression: Predictors of continuity and change during childhood. *Development and Psychopathology, 19*, 37–55.

Craig, S. E. (1992). The educational needs of children living with violence. *Phi Delta Kappa, 74*, 67–71.

Creswell, J. D., May, B. M., Eisenberger, N. I., & Lieberman, M. D. (2007). Neural correlates of dispositional mindfulness during affect labeling. *Psychosomatic Medicine, 69*, 560–565.

Creswell, J. D., Eisenberger, N., & Lieberman, M. (2005). Neural correlates of mindfulness during social exclusion. Presentation at the 3rd Annual Conference

on Integrating Mindfulness-Based Stress Reduction Interventions into Medicine, Health Care, and Society, in Worcester, MA.

Crick, N. R. (1997). Engagement in gender normative versus nonnormative forms of aggression:Links to social psychological adjustment. *Developmental Psychology, 33*, 610–617.

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., Casas, J. F., & Mosher, M. (1997). Relational and overt aggression in preschool. *Developmental Psychology, 33*, 579–588.

Crick, N. R., & Grotpeter, J. K. (1996). Children's treatment by peers: Victims of relational and overt aggression. *Development and Psychology, 8*, 367–380.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16,* 297–334.

Culley, M. R., Conkling, M., Emshoff, J., Blakely, C., & Gorman, D. (2006). Environmental and contextual influences on school violence and its prevention: Introduction to special issue. *Journal of Primary Prevention, 27*, 217–227.

Curran, P. J., & Bollen, K. A. (2001). The best of both worlds: Combining autoregressive and latent curve models. In L. M. Collins & A. G. Sayer (Eds.), *New methods for the analysis of change* (pp. 105–136). Washington, DC: American Psychological Association.

d'Acremont, M., & van der Linden, M. (2007). How is impulsivity related to depression

in adolescence? Evidence from a French validation of the Cognitive Emotion

Regulation Questionnaire. *Journal of Adolescence, 30*, 271–282.

Dahlberg, L. L. (1998). Youth violence in the U.S.: Major trends, risk factors, and

prevention approaches. *American Journal of Preventive Medicine, 14*, 259–272.

Dake, J. A., Price, J. H., Telljohann, S. K., & Funk, J. B. (2003). Teacher perceptions and

practices regarding school bullying prevention. *Journal of School Health, 73*,

347–355.

Dane, A. V., & Schneider, B. H. (1998). Program integrity in primary and early

secondary prevention: Are implementation effects out of control? *Clinical

Psychology Review, 18*, 23–45.

Danseco, E. R., Kingery, P. M., & Coggeshall, M. B. (1999). Perceived risk of harm

from marijuana use among youth in the USA. *School Psychology International,

20*, 39–56.

Davidson, R. J., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M., Muller, D., Santorelli,

S. F., et al. (2003). Alterations in brain and immune function produced by

mindfulness meditation. *Psychosomatic Medicine, 65*, 564–570.

Davis,N. J. (1999). *Youth crisis: Growing up in the high-risk society*. Westport, CT :

Praeger.

Dawkins, A. J., & Dawkins, M. P. (1983). Alcohol and other drugs as cripplers:A crucial

problem in the Black community. *Urban League Review, Winter*, 36–45.

Dawkins, M. P. (1997). Drug use and violent crime among adolescents. *Adolescence, 32*,

395–405.

De Coster, S., & Heimer, K. (2001). The relationship between law violation and depression: An interactionist analysis. *Criminology, 39*, 799–836.

de la Fuente, M., Franco, C., & Salvator, M. (2010). Reduction of blood pressure in a group of hypertensive teachers through a program of mindfulness meditation. *Behavioral psychology/ Psicología Conductual, 18*, 533–552.

De Los Reyes, A., & Prinstein, M. J. (2004). Applying depression–distortion hypotheses to the assessment of peer victimization in adolescents. *Journal of Clinical Child and Adolescent Psychiatry, 33*, 325–335.

De Voe, J. F., Peter, K., Kaufman, P., Ruddy, S. A., Miller, A. K., Planty, M., et al. (2002). *Indicators of school crime and safety: 2000*. Washington, DC: US Department of Education (USDE).

De Vries, A. C., Glasper, E. R., & Detillion, C. E. (2003). Social modulation of stress responses. *Physiology and Behavior, 79*, 399–407.

De Wolff, M. S., & van Ijzendoorn, M. H. (1997). Sensitivity and attachment: A meta-analysis of parental antecedents of infant attachment. *Child Development, 68*, 571–591.

Decker, S. H., & van Winkle, B. (1996). *Life in the gang: Family, friends, and violence*. Cambridge, UK: Cambridge University Press.

Deffenbacher, J. L., Oetting, E. R., & DiGiuseppe, R. A. (2002). Principles of empirically supported interventions applied to anger management. *The Counseling Psychologist, 30*, 262–280.

Del Vecchio, T., & O'Leary, K. D. (2004). Effectiveness of anger treatments for specific anger problems: A meta-analytic review. *Clinical Psychology Review, 24*, 15–34.

Denno, D. W. (1990). *Biology and violence: From birth to adulthood*. Cambridge, UK: Cambridge University Press.

Department of Health and Human Services & Center for Disease Control and Prevention. (2006). Youth Risk Behavior Surveillance–United States, 2005. *Morbidity and Mortality Weekly Report, 55*, 6–7.

Derzon, J. H., Springer, F., Sale, L., & Brounstein, P. (2005). Estimating intervention effectiveness: Synthetic projection of field evaluation results. *The Journal of Primary Prevention, 26*, 321–343.

Devine, J. (1996). *Maximum security*. Chicago: University of Chicago Press.

Dey, I. (1999).*Grounding grounded theory: Guidelines for qualitative inquiry*. San Diego, CA: Academic Press.

Dickens, C., McGowan, L., Percival, C., Douglas, J., Tomenson, B., Cotter, L., Creed, F. (2005). Association between depressive episode before first myocardial infarction and worse cardiac failure following infarction. *Psychosomatics, 46*, 523–528.

DiLalla, L. F. , & Goottesman, I. (1989). Heterogeneity of causes for delinquency and criminality: life span perspectives. *Development and Psychopathology, 1*, 339–349.

Dillbeck, M., Banus, C., Planzi, C., & Landrith, G. (1988). Test of a field model of consciousness and social change. *Journal of Mind and Behavior, 9*, 457–486.

Dobson, D., & Cook, T. J. (1980). Avoiding Type II error in program evaluation: Results from a field experiment. *Evaluation and Program Planning, 3*, 269–276.

Dodge, K.A. (1980). Social cognition and children's aggressive behavior. *Child Development, 51*, 162–170.

Domitrovich, C. E., & Greenberg, M. T. (2000). The study of implementation: Current findings from effective programs that prevent mental disorders in school-aged children. *Journal of Educational and Psychological Consultation, 11*, 193–221.

Dowden, C., & Andrews, D. A. (2000). Effective correctional treatment and violent reoffending: A meta-analysis. *Canadian Journal of Criminology, 42*, 449–467.

Druss, B. G., Rosenheck, R. A., & Sledge, W. H. (2000). Health and costs of depressive illness in a major US corporation. *American Journal of Psychiatry, 157*, 1274–1278.

Dua, J. K., & Swinden, M. L. (1992). Effectiveness of negative-thought-reduction, meditaiton, and placebo training treatment in reducing anger. *Scandinavian Journal of Psychology, 33*, 135–146.

Dumas, J. E., Rollock, D., Prinz, R. J., Hops, H., & Blechman, E. A. (1999). Cultural sensitivity: Problems and solutions in applied and preventative intervention. *Applied &Preventive Psychology, 8*, 175–196.

Dunn, J. (1993). *From preschool to adolescence: a ten-year follow-up of siblings in Cambridge.* Paper presented to the Centre for Family Research, Cambridge, UK.

Dwyer, K. P., Osher, D., & Hoffman, C. C. (2000). Creating responsive schools: Contextualizing early warning, timely response. *Exceptional Children, 66*, 347–365.

Eccles, J. S., Midgley, C., Wigfield, A., Buchanan, C. M., Reuman, D., & Flanagan, C., et al. (1993). Development during adolescence: The impact of stage–environment fit on young adolescents' experiences in schools and in families. *American Psychologist, 48*, 90–101.

Edmondson, C. B., & Conger, J. H. (1996). A review of treatment efficacy for

    individuals with anger problems: conceptual assessment, and methodological

    issues. *Clinical Psychology Review, 16*, 251–275.

Eisenberg, N. (2000). Emotion, regulation, and moral development. *Annual Review of*

    Psychology, 51, 665–697.

Eisenberg, N., & Fabes, R. A. (1998). Prosocial development. In N. Eisenberg (Ed.),

    Handbook of child psychology: Vol 3. Social, emotional, and personality

    development (pp. 701–778). New York: Wiley.

Eisenberg, N., Fabes, R. A., & Spinrad, T. L. (2006). Prosocial development. In N.

    Eisenberg (Ed.), *Handbook of child psychology, Vol. 3: Social, emotional, and*

    personality development (6th ed.) (pp. 646–718). New York: John Wiley.

Elam, S. M., & Rose, L. C. (1994). The 26th annual Phi Delta Kappa/Gallup poll of the

    public's attitudes toward public schools. *Phi Delta Kappa, 76*, 41–56.

Elias, M. J., Bruene-Butler, L., Blum, L., & Schuyler, T. (2000). Voices from the field:

    Identifying and overcoming roadblocks to carrying out programs in social and

    emotional learning/emotional intelligence. *Journal of Educational and*

    Psychological Consultation, 11, 253–272.

Ellickson, P. L., & McGuigan, K. A. (2000). Early predictors of adolescent violence.

    American Journal of Public Health, 90, 566–572.

Elliott, D. S. (1994). Serious violent offenders: Onset, developmental course, and

    termination: The American Society of Criminology 1993 Presidential Address.

    Criminology, 32, 1–21.

Elliott, D. S., Hamburg, B., & Williams, K. (1998). *Violence in American schools: New perspectives and solutions*. New York: Cambridge University Press.

Elliott, D. S., Huizinga, D., & Menard, S. (1989). *Mulitple problem youth: delinquency, substance use, and mental health problems*. New York: Springer–Verlag.

Elliott, D. S., & Menard, S. (1996). *Delinquent friends and delinquent behavior: temporal and developmental patterns*. Cambridge, UK: Cambridge University Press.

Elliott, D. S., & Mihalic, S. (2004). Issues in disseminating and replicating effective prevention programs. *Prevention Science, 5*, 47–54.

Emshoff, J., Avery, E., Raduka, G., Anderson, D., & Calvert, C. (1996). Findings from Super Stars: A health promotion program for families to enhance multiple protective factors. *Journal of Adolescent Research on Social Work Practice, 11*, 68–96.

Ensminger, M., & Slusarcick, A. (1992). Paths to high school graduation or dropout: A longitudinal study of a first grade cohort. *Sociology of Education, 65*, 95–113.

Epp, J. R., & Watkinson, A. M. (1997). *Systemic violence in education*. Albany, NY: State University of New York Press.

Erdley, C. A., Nangle, D. W., Newman, J. E., & Carpenter, E. M. (2001). Children's friendship experiences and psychological adjustment: Theory and research. In D. W. Nangle & C. A. Erdley (Eds.), *New directions for child development: The role of friendship in psychological adjustment* (pp. 5–23). San Francisco: Jossey–Bass.

Erikson, E. H. (1968). *Identity: Youth and crisis*. New York: Norton.

Erwin, P. (1995). *Friendship and peer relations in children* (2nd ed). Chichester, UK: Wiley.

Esbensen, F. A., & Huizinga, D. (1991). Juvenile victimization and delinquency. *Youth & Society, 23*, 202–228.

Espelage, D. L., Mebane, S. E., & Swearer, S. M. (2004). *Gender differences in bullying: Moving beyond mean level differences*. Mahwah, NJ: Lawrence Erlbaum.

Everhart, K., & Wandersman, A. (2000). Applying comprehensive quality programming and empowerment evaluation to reduce implementation barriers. *Journal of Educational Psychological Consultation, 11*, 177–191.

Exum, M. L. (2002). The application and robustness of the rational choice perspective in the study of intoxicated and angry intentions to aggress. *Criminology, 40*, 933–966.

Fabes, R. A., Carlo, G., Kupanoff, K., & Laible, D. (1999). Early adolescence and prosocial/moral behavior: The role of individual processes. *Journal of Early Adolescence, 19*, 5–16.

Fagan, A. A., & Mihalic, S. (2003). Strategies for enhancing the adoption of school-based prevention programs: Lessons learned from the blueprints for violence prevention replications of the Life Skills Training Program. *Journal of Community Psychology, 31*, 235–253.

Fagan, J., Weis, J. G., & Cheng, Y. (1990). Delinquency and substance use among inner-city students. *Journal of Drug Issues, 20*, 351–402.

Fagan, J., & Wilkinson, D. L. (1998). *Social contexts and functions of adolescent violence.* In D. S. Elliott, B. A. Hamburg, & K. R.Williams (Eds.), *Violence in American schools* (pp. 55–93). New York: Cambridge University Press.

Farrell, A. D., Meyer, A. L., Kung, E. M., & Sullivan, T. N. (2001). Development and evaluation of school-based violence prevention programs. *Journal of Clinical Child Psychology, 30*, 207–220.

Farrington, D. P. (1989). Early predictors of adolescent aggression and adult violence. *Violence and Victims, 4*, 79–100.

Farrington, D. P. (1998). Predictors, causes, and correlates of male youth violence. In M. Tonry & M. H. Moore (Eds.). *Youth violence* (pp. 421–475). Chicago: University of Chicago Press.

Farrington, D. P. (2003). Developmental and life-course criminology: Key theoretical and empirical issues.The 2002 Sutherland Award Address. *Criminology, 41*, 221–225.

Farrington, D. P. (2005). *Integrated developmental and life-course theories of offending*. New Brunswick, NJ: Transaction.

Farrington, D. P. (2006). *Building developmental and life-course theories of offending*. New Brunswick, NJ: Transaction.

Federal Bureau of Investigation. (2002). *Crime in the United States 2002*. Washington, DC: United States Department of Justice.

Fehr, E., & Rockenback, B. (2003). Detrimental effects of sanctions on human altruism. *Nature, 422*, 137–140.

Fekkes, M., Pijpers, F. I., & Verloove-Vanhorick, S. P. (2004). Bullying behavior and
associations with psychosomatic complaints and depression in victims. *Journal of
Pediatrics, 144*, 17–22.

Fenell, D. L., & Weinhold, B. K. (1989). *Counseling families: An introduction to
marriage and family therapy.* Denver, CO: Love.

Ferguson, T. J., & Stegge, H. (1998). *Measuring guilt in children: A rose by any other
name still has thorns*. In J. Bybee (Ed.), *Guilt and children* (pp. 19–74). New
York: Guilford Press.

Fingerhut, L. A., Ingram, D. D., & Feldman, J. J. (1998). Homicide rates among US
teenagers and young adults. *Journal of the American Medical Association, 280*,
423–427.

Fitzpatrick, K. M., & Boldizar, J. P. (1993). The prevalence and consequences of
exposure to violence among African-American youth. *Journal of American
Academy of Child and Adolescent Psychiatry, 32*, 424–430.

Forsstrom-Cohen, B., & Rosenbaum, A. (1985). The effects of parental marital violence
on young adults. *Journal of Marriage and the Family, 47*, 467–472.

Freeman, L. N., Mokros, H., & Poznanski, E. O. (1993). Violent events reported by
normal urban school-aged children: Characteristics and depression correlates.
Journal of the American Academy of Child and Adolescent Psychiatry, 32, 419–
423.

Frijida, N. H. (1994). *The lex talionis: On vengeance*. Hillsdale, NJ: Lawrence Erlbaum
Associates.

Fryxell, D., & Smith, D. C. (2000). Personal, social, and family characteristics of angry students. *Professional School Counseling, 4*, 86–97.

Furlong, A., & Cartmel, F. (1997). *Young people and social change: Individualisation and risk in the age of high modernity*. Buckingham, UK: Open University Press.

Furlong, J., Barton, L., Miles, S., Whiting, C., & Whitty, G. (2000). *Teacher Education in transition: Reforming professionalism?* Buckingham, UK: Open University Press.

Furlong, M., Casas, J. M., Corral, C., Chung, A., & Bates, M. (1997). Drugs and school violence *Education and Treatment of Children, 20*, 263–281.

Furlong, M., & Morrison, G. (2000). The school in school violence: Definitions and facts. *Journal of Emotional and Behavioral Disorders, 8*, 71–82.

Garcia-Leon, A., Reyes, G. A., Vila, J., Perez, N., Robles, H., et al. (2002). The aggression questionnaire: a validation study in student samples. *The Spanish Journal of Psychology, 5*, 45–53.

Garland, E.L., Gaylord, S.A., & Fredrickson, B.L. (2011). Positive reappraisal mediates the stress-reductive effects of mindfulness: An upward spiral process. *Mindfulness, 2*, 59–67.

Garmezy, N. (1983). Stressors of childhood. In N. Garmezy (Ed.), *Stress, coping, and development in children* (pp. 43–84). Baltimore: The Johns Hopkins University Press.

Gelaye, B., Philpart, M., Goshu, M., Berhane, Y., Fitzpatrick, A. L., & Williams, M. A. (2008). Anger expression, negative life events and violent behaviour among male

college students in Ethiopia. *Scandinavian Journal of Public Health, 36*, 538–545.

George, R., & Thomas, G. (2000). Victimization among middle and high school students: A multilevel analysis. *High School Journal*, *84*, 48-51.

Germer, C. K., Siegel, R. D., & Fulton, P. R. (Eds.). (2005). *Mindfulness and psychotherapy*. New York: Guilford Press.

Gilligan, C. (1982). New maps of development: New visions of maturity. *American Journal of Orthopsychiatry, 52*, 199–212.

Gilmartin, B. G. (1987). Peer group antecedents of severe love-shyness in males. *Journal of Personality, 55*, 467–489.

Giordano, P., Longmore, M., & Manning, W. (2006). Gender and the meanings of adolescent romantic relationships: A focus on boys. *American Sociological Review, 71*, 260–287.

Glaeser, E. L., Laibson, D., Scheinkman, J. A., & Soutter, C. L. (2000). Measuring trust. *Quarterly Journal of Economics, 115*, 811–846.

Glaser, R. R., van Horn, M. L., Arthur, M. W., Hawkins, J. D., & Catalano, R. F. (2005). Measurement properties of the Communities That Care Youth Survey across demographic groups. *Journal of Quantitative Criminology, 21*, 73–102.

Glew, G. M., Fan, M., Katon, W., Rivara, F. P., & Kernic, M. A. (2005). Bullying, psychosocial adjustment, and academic performance in elementary school. *Archives of Pediatric and Adolescent Medicine, 159*, 1026–1031.

Glick, B., & Goldstein, A. P. (1983). Aggression replacement training. *Journal of Counseling and Development, 65*, 356–362.

Goldstein, A. P., & Glick, B. (1994a). Aggression replacement training: Curriculum and
evaluation. *Simulation and Gaming, 25*, 9–26.

Goldstein, A. P., & Glick, B. (1994b). *The prosocial gang: Implementing aggression
replacement training*. Thousand Oaks, CA: Sage.

Goldstein, A. P., Apter, S. J., & Harootunian, B. (1984). *School violence*. Englewood
Cliffs, NJ: Prentice–Hall.

Goldstein, A. P., & Conoley, J. C. (1997). *Student aggression: Current status*. New
York: Guilford.

Goldstein, A. P., & Glick, B. (1987). *Aggression replacement training: A comprehensive
intervention for adolescent youth*. New York: Plenum.

Goldstein, A. P., Glick, B., & Gibbs, J. C. (1998). *Aggression replacement training: A
comprehensive intervention for aggressive youth*. Champaign, IL: Research Press.

Goldstein, A. P., Nensen, R., Daleflod, B., & Kalt, M. (2004). *New perspectives on
aggression replacement training: Practice research and application*. New York:
John Wiley.

Good, T. L. & Weinstein, R. S. (1986). Schools make a difference: Evidence, criticisms,
and new directions. *American Psychologist, 41*, 1090–1097.

Goodwin, R. D. (2006). Association between coping with anger and feelings of
depression among youths. *American Journal of Public Health, 96*, 664–669.

Gorman-Smith, D., & Tolan, P. H. (1998). The role of exposure to community violence
and developmental problems among inner-city youth. *Development and
Psychopathology, 10*, 101-116.

Gorski, J. D., & Pilotto, L. (1993). Interpersonal violence among youth: A challenge for

    school personnel. *Educational Psychology Review, 5*, 35–61.

Gottfredson, D. C. (2001). *Schools and delinquency*. New York: Cambridge University

    Press.

Gottfredson, D. C., & Gottfredson, G. D. (2002). Quality of school-based prevention

    programs: Results from a national survey. *Journal in Crime and Delinquency, 39*,

    3–35.

Gottfredson, G. D., Gottfredson, D. C., Czeh, E. R., Cantor, D., Crosse, S. B., &

    Hantman, I. (2000). National study of delinquency prevention in schools. Ellicott

    City, MD: Gottfredson Associates, Inc.

Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime*. Palo Alto, CA:

    Standford University Press.

Graham, S., Bellmore, A. D., & Mize, J. (2006). Peer victimization, aggression, and their

    co-occurence in middle school: Pathways to adjustment problems. *Journal of

    Abnormal Child Psychology, 34*, 363–378.

Greene, M. B. (2000). *Bullying and harassment in schools*. Springfield, IL: Charles C.

    Thomas.

Greene, M. B. (2005). Reducing violence and aggression in schools. *Trauma, Violence &

    Abuse, 6*, 236–253.

Greenwood, D. J., Whyte, W. F., & Harkavy, I. (1993). Participatory action research as a

    process and as a goal. *Human Relations, 46*, 175–192.

Greenwood, P. W. (1992). Substance abuse problems among high-risk youth and

    potential intervention. *Crime & Delinquency, 38*, 444–458.

Griffin, R. S., & Gross, A. M. (2004). Childhoold bullying: Current empirical findings and future directions for research. *Aggression and Violent Behavior, 9*, 379–400.

Gudlaugsdottir, G. R., Vilhjalmsson, R., Kristjansdottir, G., Jacobsen, R., & Meyrowitsch, D. (2004). Violent behaviour among adolescents in Iceland: a national survey. *International Journal of Epidemiology, 33*, 1046–1051.

Gumpel, T. P., & Meadan, H. (2000). Children's perceptions of school-based violence. *British Journal of Educational Psychology, 70*, 319–404.

Gunaratana, B. H. (2002). *Mindfulness in plain English*. Somerville, MA: Wisdom.

Gyekye, K. (1996). *African cultural values*. Philadelphia: Sankofa.

Hagan, J. (1997). Defiance and despair: Subcultural and structural linkages between delinquency and despair in the life course. *Social Forces, 76*, 119–134.

Hagan, J., & Foster, H. (2003). S/He's a rebel: toward a sequential stress theory of delinquency and gendered pathways to disadvantage in emerging adulthood. *Social Forces, 82*, 53–86.

Hamilton Fish Institute. (2001). Comprehensive framework for school violence prevention. Retrieved from

http://www.hamfish.org/pv/framework/frameworks/admin.html

Hanson, C. L., Henggeler, S. W., Haefele, W. F., & Rodick, J. D. (1984). Demographic, individual, and family relationship correlates of serious and repeated crime among adolescents and their siblings. *Journal of Consulting and Clinical Psychology, 52*, 528–538.

Hantman, I., & Crosse, S. (2000). *National study of local education agency activities under the Safe and Drug Free Schools and Communities Act*. Rockville, MD: Westat.

Harburg, E., Blakelock, E. H., Jr., & Roeper, P. R. (1979). Resentful and reflective coping with arbitrary authority and blood pressure: Detroit. *Psychosomatic Medicine, 41*, 189–202.

Harpham, T., Grant, E., & Thomas, E. (2002). Measuring social capital within health surveys: Key issues. *Health Policy and Planning, 17*, 106–111.

Harris, J. (2000). Self-harm: Cutting the bad out of me. *Qualitative Health Research, 10*, 164–173.

Harrison, L., & Gfroerer, J. (1992). The intersection of drug use and criminal behavior: Results from the National Household Survey on Drug Abuse. *Crime and Delinquency, 38*, 422–443.

Hart, D., M., Yates, S., & Fegley, G.W. (1995). Moral commitment in inner-city adolescents. In M. Killen and D. Hart (Eds). *Morality in everyday life: Developmental perspective* (pp. 317–42). Cambridge, UK: Cambridge University Press.

Hawker, D. S. J., & Boulton, M J. (2000). Twenty years' research on peer victimization and psychosocial maladjustment: A meta-analysis review of cross-sectional studies. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 41*, 441–455.

Hawkins, J. D., Herrenkohl, T., Farrington, D. P., Brewer, D., Catalano, R. F., & Harachi, T. W. (1998). *A review of predictors of youth violence.* In R. Loebe and

D. Farrington (Eds.), *Serious and violent juvenile offenders: Risk factors and successful intervention* (pp.106–146). Thousand Oaks, CA: Sage.

Hawkins, J. D., Herrenkohl, T. I., Farrington, D. P., Catalano, R. F., Harachi, T., & Cothern, L. (2000). *Predictors of youth violence*. Washington, DC: Office of Juvenile Justice and Delinquency Prevention.

Hawkley, L. C., Masi, C. M., Berry, J. D., & Cacioppo, J. T. (2006). Loneliness is a unique predictor of age-related differences in systolic blood pressure. *Psychology and Aging, 21*, 152–164.

Hay, C. (2003). Family strain, gender, and delinquency. *Sociological Perspectives, 46*, 107–135.

Hay, D. F. (1984). Social conflict in early childhood. *Child Development, 1*, 1–44.

Hayes, S. C., Follette, V. M., & Linehan, M. M. (2004). *Mindfulness and acceptance: Expanding the cognitive–behavioral tradition.* New York: Guilford Press.

Haynes, N. M. (1996). Creating safe and caring school communities: Comer School Development Program schools. *Journal of Negro Education, 65*, 308–314.

Haynie, D. L. (2005). Reconsidering peers and delinquency: How do peers matter? *Social Forces, 84*, 1109–1130.

Haynie, D. L., Nansel, T., Eitel, P., Crump, A. D., Saylor, K., Yu, K., et al. (2001). Bullies, victims, and bully/victims: Distinct groups of at-risk youth. *Journal of Early Adolescence, 21*, 29–49.

Hazler, R. J. (1996). Bystanders: An overlooked variable in peer abuse. *The Journal for the Professional Counselor, 11*, 11–21.

Hearn, J. (2007). *Masculinity/masculinities*. In M. Flood, J. K. Gardiner, B. Pease, & K. Pringle (Eds.), *International Encyclopedia of Men and Masculinities* (pp. 390–394). Abingdon, UK: Routledge.

Heaviside, S., Rowand, C., Williams, C., Farris, E., Burns, S., & McArthur, E. (1998). *Violence and discipline problems in U.S. public schools: 1996–1997*. United States Department of Education: National Center for Education Statistics.

Henggeler, S. W., Rodick, J. D., Borduin, C. M., Hanson, C. L., Watson, S. M., & Urey, J. M. (1986). Multisystemic treatment of juvenile offenders: Effects on adolescent behavior and family interaction. *Developmental Psychology, 22*, 132–141.

Henry, B., Caspi, A., Moffitt, T. E., & Silva, P. A. (1996). Temperamental and familial predictors of violent and nonviolent criminal convictions: age 3 to age 18. *Developmental Psychology, 32*, 614–623.

Herrenkohl, T. I., Chung, I. J., & Catalano, R. F. (2004). Review of research on predictors of youth violence and school-based and community-based prevention approaches. In P. Allen-Meares & M. W. Fraser (Eds)*, Intervention with children and adolescents: An interdisciplinary perspective* (pp. 449–476)*.* Boston: Pearson Education.

Herrenkohl, T. I., Maguin, E., Hill, K. G., Hawkins, J. D., Abbot, R. D., & Catalano, R. F. (2000). Developmental risk factors for youth violence. *Journal of Adolescent Health, 26*, 176–186.

Hess, F. M., & Leal, D. L. (2001). *Technocracies, bureaucracies, or responsive polities? Urban school systems and the politics of school violent prevention.* Paper

presented at the annual meeting of the American Political Science Association, San Francisco.

Hindelang, M. J. (1973). Causes of delinquency: A partial replication. *Social Problems, 21*, 471–487.

Hines, P. M., & Boyd-Franklin, N. (1982). Black families. In J. K. Pearce, M. McGoldrick, & J. Giordano (Eds.), *Ethnicity and family therapy* (pp. 84–107). New York: Guilford.

Hirschi, T. (1969). *Causes of delinquency*. Berkeley, CA: University of California Press.

Hoffmann, J. P., & Su, S. S. (1997). The conditional effects of stress on delinquency and drug use: A strain theory assessment of sex differences. *Journal of Research in Crime and Delinquency, 34*, 46–78.

Hoge, D. R., Andrews, A. D., & Leschied, W. A. (1994). Tests of three hypotheses regarding the predictors of delinquency. *Journal of Abnormal Child Psychology, 22*, 547–559.

Hogh, E., & Wolf, P. (1983). *Violent crime in a birth cohort: Copenhagen 1953–1977*. Boston: Kluwer–Nijhoff.

Howell, J. C. (1995). *Gangs and youth violence*. Thousand Oaks, CA: Sage.

Howell, K., Daffern, M., & Day, A. (2008). Aggression and violence. In K. Soothill, P. Rogers & M. Dolan (Eds.), *Handbook of Forensic Mental Health* (pp. 351–374). Cullompton, UK: Willan.

Humphries, M. L., Parker, B. L., & Jagers, R. J. (2000). Predictors of moral reasoning among African American children: A preliminary study. *Journal of Black Psychology, 26*, 51–64.

Hunter, L., Elias, M. J., & Norris, J. (2001). School-based violence prevention: Challenges and lessons learned from an action research project. *Journal of School Psychology, 39*, 161–175.

Igra, V., & Irwin, C. E. Jr. (1996). *Theories of adolescent risk-taking behavior*. New York: Plenum Press.

Irwin, C. E., & Igra, V. (1995). Risk and risk-taking in adolescents. In B. L. Lindstrom and N. Spencer (Eds.), *Social Pediatrics.* Oxford, UK: Oxford University Press.

Irwin, C. E., Igra, V., Eyre, S., & Millstein, S. G. (1997). Risk-taking: The paradigm. *Annals of the New York Academy of Science, 817*, 1–35.

Irwin, C. E., & Ryan, S. A. (1989). Problem behaviors of adolescence. *Pediatrics in Review, 10*, 235–246.

Jang, S.S. (2002). Race, ethnicity, and deviance: a study of Asian and non-Asian adolescents in America. *Sociological Forum, 17*, 647–680.

Jenkins, P. (1997). School delinquency and the school social bond. *Journal of Research in Crime and Delinquency, 34*, 337–367.

Jenkins, S. R., Goodness, K., & Buhrmester, D. (2002). Gender differences in early adolescents' relationship qualities, self-efficacy and depression symptoms. *Journal of Early Adolescence, 22*, 277–309.

Jensen, G. F., Erickson, M. L., & Gibbs, J. P. (1978). Perceived risk of punishment and self-reported delinquency. *Social Forces, 57*, 57–78.

Jessor, R. (1977). *Problem behavior and psychological development: a longitudinal study of youth*. New York: Academic Press.

Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (1996). *National survey results on drug use from the Monitoring the Future study, 1975–1995. Volume I, secondary school students.* Washington, DC: National Institute on Drug Abuse.

Joiner, T. E. (1996). Depression and rejection: On strangers and friends, symptom specificity, length of relationship, and gender. *Communication Research, 23*, 451–471.

Josselson, R. (1980). Ego development in adolescence. In J. Adelson (Ed.), *Handbook of adolescent psychiatry* (pp. 188–210). New York: Wiley.

Juvonen, J., Nishina, A., & Graham, S. (2000). Peer harassment, psychological adjustment, and school functioning in early adolescence. *Journal of Educational Psychology, 92*, 349–359.

Kabat-Zinn, J. (1982). An outpatient program in behavioral medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary results. *General Hospital Psychiatry, 4*, 33–47.

Kabat-Zinn, J. (1990). *Full catastrophe living*. New York: Delacorte.

Kabat-Zinn, J. (2005). *Wherever you go there you are: Mindfulness meditation in everyday life*. New York: Hyperion.

Kabat-Zinn, J., Massion, A. O., Kristeller, J. L., Peterson, L. G., Fletcher, K. E., Pbert, L., Santorelli, S. F. (1992). Effectiveness of a meditation-based stress reduction program in the treatment of anxiety disorders. *The American Journal of Psychiatry, 149*, 936–943.

Kalliotis, P. (2000). Bullying as a special case of aggression: Procedures for cross-cultural assessment. *School Psychology International, 21*, 47–64.

Kaltiala-Heino, R., Rimpela, M., Marttunen, M., Rimpela, A., & Rantanen, P. (1999). Bullying, depression, and suicidal ideation in Finnish adolescents: School survey. *British Medical Journal, 319*, 348–351.

Kann, L., Kinchen, S. A., Williams, B. I., Ross, J. G., Lowry, R., Hill, C. V., Kolbe, L. J. (1998). Youth risk behavior surveillance–United States, 1997. J*ournal of School Health, 68*, 355–369.

Kaplan, H. B. (1980). *Deviant behaivour in defense of self*. New York: Academic Press.

Kaplan, H. B., Johnson, R. J., & Bailey, C. A. (1987). Deviant peers and deviant behavior: Further elaboration of a model. *Social Psychology Quarterly, 50*, 277–284.

Kapur, S., & Mann, J. J. (1992). Role of the dopaminergic system in depression. *Biological Psychiatry, 32*, 1–17.

Kaslow, N. J., Rehm, L. P., Pollack, S. L., & Siegel, A. W. (1988). Attributional style and self-control behavior in depressed and nondepressed children and their parents. *Journal of Abnormal Child Psychology, 16*, 163–175.

Katz, M. (1997). *On playing a poor hand well: Insights from the lives of those who have overcome childhood risks and adversities*. London: W.W. Norton.

Kaufman, K. L., Holmberg, J. K., Orts, K. A., McCrady, F. E., Rotzien, A. L., Daleiden, E. L., et al. (1998). Factors influencing sexual offenders' modus operandi: An examination of victim–offender relatedness and age. *Child Maltreatment, 3*, 349–361.

Kelder, S. H., Murray, N. G., Orpinas, P., Prokhorov, A., McReynolds, L., & Zhang, Q.,
et al. (2001). Depression and substance use in minority middle-school students.
American Journal of Public Health, 91, 761–766.

Kelly, B. D. (2008). Buddhist psychology, psychotherapy and the brain: A critical
introduction. *Transcultural Psychiatry, 45*, 5–30.

Kelly, D. H., & Pink, W. T. (1982). School crime and individual responsibility: The
perception of a myth? *Urban Review, 14*, 47–63.

Kendler, K. S., & Karkowski-Shuman, L. (1997). Stressful life events and genetic
liability to major depression: Genetic control of exposure to the environment?
Psychological Medicine, 27, 539–547.

Kenway, J., & Fitzclarence, L. (1997). Masculinity, violence and schooling: Challenging
poisonous pedagogies. *Gender and Education, 9*, 117–133.

Kessler, R. C., Greenberg, P. E., & Mickelson, K. D. (2001). The effects of chronic
medical conditions on work loss and work cutback. *Journal of Occupational and
Environmental Medicine, 43*, 218–225.

Khantzian, E. J. (1997). The self-medication hypothesis of substance use disorders: A
reconsideration and recent applications. *Harvard Review of Psychiatry, 4*, 231–
244.

Kilgore, S. B. (1991). The organizational context of tracking in schools. *American
Sociologial Review, 56*, 189–203.

Killen, M., Leviton, M., & Cahill, J. (1991). Adolescent reasoning about drug use.
Journal of Adolescent Research, 6, 336–356.

Kim-Cohen, J., Caspi, A., Taylor, A., Williams, B., Newcombe, R., Craig, I. W., et al. (2006). MAOA, maltreatment, and gene–environment interaction predicting children's mental health: New evidence and a meta-analysis. *Molecular Psychiatry, 11*, 903–913.

Kim, K. J., Conger, R. D., Elder, G. H., & Lorenz, F. O. (2003). Reciprocal influences between stressful life events and adolescent internalizing and externalizing problems. *Child Development, 74*, 127–143.

King, A., Wold, B., Tudor-Smith, C., & Harel, Y. (1994). *The health of youth: A cross-national survey.* Canada: WHO Library Cataloguing. WHO Regional Publications European Series No. 69.

Kingery, P. M., Coggeshall, M. B. & Alford, A. A. (1998). Violence at school: Recent evidence from four national surveys. *Psychology in the Schools, 35*, 247–258.

Kingery, P. M., Pruitt, B. E., & Heuberger, G. (1996). A profile of rural Texas adolescents who carry handguns to school. *Journal of School Health, 66*, 210–214.

Kingsbury, S. J., Lambert, M. T., & Hendrickse, W. (1997). A two-factor model of aggression. *Psychiatry, 60*, 224–232.

Kistner, J. A., David-Ferdon, C. F., Repper, K. K., & Joiner, T. E. (2006). Bias and accuracy of children's perceptions of peer acceptance: Prospective associations with depressive symptoms. *Journal of Abnormal Child Psychology, 34*, 349–361.

Kitamura, T., & Hasui, C. (2006). Anger feelings and anger expression as a mediator of the effects of witnessing family violence on anxiety and depression in Japanese adolescents. *Journal of Interpersonal Violence, 21*, 843–855.

Kitzmann, K. M., Gaylord, N. K., Holt, A. R., & Kenny, E. D. (2003). Child witnesses to domestic violence: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 71*, 339–352.

Klein, M. W. (1995). *The American street gang: Its nature, prevalence, and control*. New York: Oxford University Press.

Klein, M. W. (1996). Gangs in the United States and Europe. *European Journal on Criminal Policy and Research, 4*, 63–80.

Klinteberg, B. A. , Andersson, T., Magnusson, D., & Stattin, H. (1993). Hyperactive behavior in childhood as related to subsequent alcohol problems and violent offending: A longitudinal study of male subjects. *Personality and Individual Differences, 15*, 381–388.

Koh, K. B., Kim, D. K., Kim, S. Y., & Park, J. K. (2005). The relation between anger expression, depression and somatic symptoms in depressive disorders and somtoform disorders. *Journal of Clinical Psychiatry, 66*, 485–491.

Kornhauser, R. R. (1978). *Social sources of delinquency*. Chicago: University of Chicago Press.

Kreiger, T. S., & Dumka, L. E. (2006). The relationship between hypergender, gender, and psychological adjustment. *Sex Roles, 54*, 777–785.

Krohn, M. D., Lizotte, A. J., Thornberry, T. P., Smith, C., & McDowall, D. (1996). Reciprocal causal relationships among drug use, peers, and beliefs: A five-wave panel model. *Journal of Drug Issues, 26*, 406–428.

Kroner, D. G., & Reddon, J. R. (1992). The Anger Expression Scale and State–Trait Anger Scale: Stability, reliability, and factor structure in an inmate sample. *Criminal Justice and Behavior, 19*, 397–408.

Krug, E. G., Mercy, J. A., Dahlberg, L. L., & Zwi, A. B. (2002). The world report on violence and health. *Lancet, 360*, 1083–1088.

Kumar, S. (2001). Crowding and violence on psychiatric wards: Explanatory models. *Canadian Journal of Psychiatry, 46*, 433–437.

Lagerspertz, K. M. J., Bjorkqvist, K., & Peltonen, T. (1988). Is direct aggression typical of females? Gender differences in aggressiveness in 11- to 12-year-old children. *Aggressive Behavior, 14*, 403–414.

Lai, D. W. (1999). Violence exposure and mental health of adolescents in small towns: An exploratory study. *Canadian Journal of Public Health, 90*, 181–185.

Larrain, S., Vega, J., & Delgado, I. (1997). *Relaciones familiares y maltrato infantil*. UNICEF Editorial. Santiago, Chile: Cal & Canto.

Laub, H. H., & Lauritsen, J. L. (1998). *The interdependence of school violence with neighborhood and family conditions*. New York: Cambridge University Press.

Lawrence, R. (1998). *School crime and juvenile justice*. New York: Oxford University Press.

Lazar, S. W., Kerr, C. E.,Wasserman, R. H., Gray, J. R., Greve, D. N., Treadway, M. T., et al. (2005). Meditation experience is associated with increased cortical thickness. *Neuro Report*, *16*, 1893–1897.

LeBlanc, M., & Loeber, R. (1998). Developmental criminology updated. In M. Tonry (Ed.), *Crime and justice: A review of research, Vol. 23*, (pp. 115–198). Chicago: University of Chicago Press.

LeBlanc, M. , & Frechette, M. (1989). *Male criminal activity from childhood through youth: Multilevel and developmental perspectives*. New York: Springer–Verlag.

Lederman, D., Loayza, N., & Menendez, A. M. (1999). *Violent crime: Does social capital matter?* Washington, DC: World Bank.

Lee, L. K., Chen, P. C., Lee, K. K., & Kaur, J. (2007). Violence-related behaviours among Malaysian adolescents: A cross sectional survey among secondary school students in Negeri Sembilan. *Annuals of the Academy of Medicine, Singapore, 36*, 169–174.

Lee, R. M., & Robbins, S. B. (1998). The relationship between social connectedness and anxiety, self-esteem, and social identity. *Journal of Counseling Psychology, 5*, 338–345.

Lennings, C. J., Copeland, J., & Howard, J. (2003). Substance use patterns of young offenders and violent crime. *Aggressive Behavior, 29*, 414–422.

Lewinsohn, P. M., Rohde, P., & Seely, J. R. (1998). Major depressive disorder in older adolescents: Prevalence, risk factors and clinical implications. *Clinical Psychology Review, 18*, 765–794.

Lin, C., & Liu, W. T. (1993). Intergenerational relationships among Chinese immigrant families from Taiwan. In H. P. McAdoo (Ed.), *Family ethnicity: Strength in diversity* (pp. 271–286). Newbury Park, CA: Sage.

Lipsey, M. W., & Derzon, J. H. (1998). Predictors of violent or serious delinquency in adolescence and early adulthood: A synthesis of longitudinal research. In R. Loeber & D. P. Farrington (Eds.), *Serious and violent juvenile offenders* (pp. 86–105). Thousand Oaks, CA: Sage.

Locher, K., Kawachi, I., & Kennedy, B. P. (1999). Social capital: A guide to its measurement *Health and Place, 5*, 259–270.

Lockwood, D. (1997). *Violence among middle school and high school students: Analysis and implications for prevention*. Washington, DC: National Institute of Justice.

Loeber, R. (1996). Developmental continuity, change, and pathways in male juvenile problem behaviors and delinquency. In J. D. Hawkins (Ed.), *Delinquency and crime: Current theories* (pp. 1–27). Cambridge, UK: Cambridge University Press.

Loeber, R., Farrington, D. P., Stouthamer-Loeber, M., Moffitt, T. E., & Caspi, A. (1998). The development of male offending: Key findings from the first decade of the Pittsburgh Youth Study. *Studies on Crime and Crime Prevention, 7*, 141–171.

Loeber, R., Farrington, D. P., Stouthamer-Loeber, M., Moffitt, T. E., Caspi, A., White, H. R., Beyers, J. M. (2003). The development of male offending: Key findings from fourteen years of the Pittsburgh Youth Study. In T. P. Thornberry & M. D. Krohn (Eds.), *Taking stock of delinquency: An overview of findings from contemporary longitudinal studies* (pp. 91–136). New York: Kluwer/Plenum.

Loeber, R., Farrington, D. P., & Waschbush, D. A. (1998). Serious and violent juvenile offenders. In R. Loeber & D. P. Farrington (Eds.), *Risk factors and successful interventions* (pp. 13–29). Thousand Oaks, CA: Sage.

Loeber, R., & Hay, D. (1997). Key issues in the development of aggression and violence from childhood to early adulthood. *Annual Review of Psychology, 48*, 371–410.

Loeber, R., Keenan, K., & Zhang, Q. (1997). Boys' experimentation and persistence in developmental pathways toward serious delinquency. *Journal of Child and Family Studies, 6*, 321–357.

Loeber, R., & LeBlanc, M. (1990). Toward a developmental criminology. *Criminal Justice Annual Review, 12*, 373–473.

Loeber, R., Russo, M. F., Stouthamer-Loeber, M., & Lahey, B. B. (1994). Internalizing problems and their relation to the development of disruptive behaviors in adolescence. *Journal of Research on Adolescence, 4*, 615–637.

Loeber, R., Smalley, M. M., Keenan, K., & Zhang, Q. (1997). *A prospective replication of developmental pathways in disruptive and delinquent behavior*. Thousand Oaks, CA: Sage.

Loeber, R., Wung, P., Keenan, K., Giroux, B., Stouthamer-Loeber, M., VanKammen, W. B., et al. (1993). Developmental pathways in disruptive child behavior. *Development and Psychopathology, 5*, 103–133.

Lowry, R., Cohen, L. R., Modzeleski, W., Kann, L., Collins, J. L., & Kolbe, L. R. (1999). School violence, substance use, and availability of illegal drugs on school property among U.S. high school students. *Journal of School Health, 69*, 347–355.

Lundeberg, K., Stith, S. M., Penn, C. E., & Ward, D. B. (2004). A comparison of nonviolent, psychologically violent, and physically violent male college daters. *Journal of Interpersonal Violence, 19*, 1191–1200.

Lynch, M. (2003). Consequences of children's exposure to community violence. *Clinical Child and Family Psychology Review, 6*, 265–273.

Lynch, M., & Cicchetti, D. (1998). An ecological–transactional analysis of children and contexts: The longitudinal interplay among child maltreatment, community violence, and children's symptomatology. *Development and Psychopathology, 10*, 235–257.

Lyng, S. (1990). Edgework: A social psychological analysis of voluntary risktaking. *American Journal of Sociology,* 95, 851–86.

Maccoby, E. E. (1988). Gender as a social category. *Developmental Psychology, 24*, 735–765.

Maguin, E., Hawkins, J. D., Catalano, R. F., Hill, K., Abbott, R., & Herrenkohl, T. (1995). Risk factors measured at three ages for violence age 17–18. Paper presented at American Society of Criminology, Boston.

Maguin, E., & Loeber, R. (1996). Academic performance and delinquency. In M. Tonry & N. Morris (Eds.), *Crime and justice: An annual review of research, Vol. 20*, (pp. 145–264). Chicago: University of Chicago Press.

Malison, R. T., Price, L. H., Berman, R., Van Dyck, C. H., Pelton, G. H., Carpenter, L., Charney, D. S. (1998). Reduced brain serotonin transporter availability in major depression as measured by [123]-2beta-carbomethoxy-3beta-(4-iodophenyl) tropane and single photon emission computed tomography. *Biological Psychiatry, 41*, 1156–1164.

Marcus, J. B. (1996). *The crime vaccine: How to end the crime epidemic*. Baton Rouge, LA: Claitor's.

Margolin, G., & Gordis, E. B. (2000). The effects of family and community violence on

    children. *Annual Review of Psychology, 51*, 445–479.

Mash, E. J., & Wolfe, D. A. (2007). *Abnormal child psychology* (3rd ed.). Belmont, CA:

    Wadsworth Thomson.

Maxfield, M. G. (2001). *Guide to frugal evaluation for criminal justice*. Washington,

    DC: National Institute of Justice.

Mayne, T. J., & Ambrose, T. K. (1999). Research review on anger in psychotherapy.

    Journal of Clinical Psychology/In Session: Psychotherapy in Practice, 55, 353–

    363.

Mazerolle, P., Burton, B. S., Cullen, F. T., Evans, T. D., & Payne, G. L. (2000). Strain,

    anger, and delinquent adaptations: Specifying general strain theory. *Journal of

    Criminal Justice, 28*, 89–101.

Mazerolle, P., & Maahs, J. (2000). General strain and delinquency: An alternative

    examination of conditioning influences. *Justice Quarterly,, 17*, 753–778.

Mazerolle, P., & Piquero, A. (1998). Linking exposure to strain with anger: An

    investigation of deviant adaptations. *Journal of Criminal Justice, 26*, 195–211.

Mazerolle, P., Piquero, A. R., & Capowich, G. E. (2003). Examining the links between

    strain, situational and dispositional anger, and crime. *Youth & Society, 35*, 131–

    157.

McCord, J. (1979). Some child-rearing antecedents of criminal behavior in adult men.

    Journal of Personality and Social Psychology, 37, 1477–1486.

McCord, J. (1990). Problem behaviors. In S. S. Feldman & Feldman & R. G. Elliott (Eds.)*, At the threshold: The developing adolescent* (pp. 414–430)*.* Cambridge, MA: Harvard University Press.

McCord, J. (1996). Family as crucible for violence: comment on Gorman-Smith et al. (1996). *Journal of Family Psychology, 10*, 147–152.

McDermont, M. N., & Palchanes, K. (1994). A literature review of the critical elements in translation theory. *Image*, 113–117.

McEvoy, A., & Welker, R. (2000). Antisocial behavior, academic failure, and school climate: A critical review. *Journal of Emotional and Behavioral Disorders, 8*, 130–140.

Meddings, D. R., Knox, L. M., Maddaleno, M., Concha-Eastman, A., & Hoffman, J. S. (2005). World Health Organization's TEACH-VIP contributing to capacity building for youth violence prevention. *American Journal of Preventive Medicine, 29*, 259–269.

Meloy, J. R. (2006). Empirical basis and forensic application of affective and predatory violence. *Australian and New Zealand Journal of Psychiatry, 40*, 539–547.

Menaghan, E. G. (1999). *Social stressors in childhood and adolesence*. Cambridge, UK: Cambridge University Press.

Menesini, E., Eslea, M., Smith, P. K., Genta, M. L., Giannetti, E., Fonzi, A., et al. (1997). Cross-national comparison of children's attitude towards bully/victim problems in school. *Aggressive Behavior, 23*, 245–257.

Mercy, J. A., & Rosenberg, M. L. (1998). Preventing firearm violence in and around schools. In D. S. Elliott, B. A. Hamburg,& K. R. Williams (Eds.), *Violence in*

American schools: A new perspective (pp. 159-187). Cambridge, MA: Cambridge University Press.

Messerschmidt, J. W. (2004). *Flesh and blood: Adolescent gender diversity and violence*. Oxford, UK: Rowman & Littlefield.

Michael, K., & Ben-Zur, H. (2007). Risk-taking among adolescents: Associations with social and affective factors. *Journal of Adolescence, 30*, 17–31.

Mihalic, S., Fagan, A. A., Irwin, K., Ballard, D., & Elliott, D. (2004). *Blueprints for violence prevention*. Washington, DC: Office of Juvenile Justice and Delinquency Prevention.

Miller, A. K. (2003). *Violence in U.S. public schools: 2000 school survey on crime and safety (NCES 2004–314 REVISED).* Washington, DC: Government Printing Office.

Miller, T. R., Cohen, M. A., & Wiersema, B. (1996). Victim costs and consequences: A new look. Washington, DC: National Institute of Justice.

Milstein, R. L., & Wetterhall, S. F. (1999). Framework for program evaluation in public health. *Morbidity and Mortality Weekly Report Recommendations & Reports, 48*, 1–40.

Ministry of Education. (2008). *Towards a learning society in Thailand: An introduction of education in Thailand.* Bangkok, Thailand: Ministry of Education.

Mitterauer, M. (1992). Peasant and non-peasant family forms in relation to physical environment and local economy. *Journal of Family History, 17,* 139–159.

Moffitt, T. E. (1993). Adolescence-limited and life-course-persistent antisocial behavior: a developmental taxonomy. *Psychological Review, 100*, 674–701.

Moffitt, T. E., Caspi, A., Rutter, M., & Silva, P. (2001). *Sex differences in antisocial behavior*. New York: Cambridge University Press.

Morash, M., & Rucker, L. (1989). An exploratory study of the connection of mother's age at childbearing to her children's delinquency in four data sets. *Crime and Delinquency, 35*, 45–93.

Mosher, D. L., & Tomkins, S. S. (1988). Scripting the macho man: Hypermasculinity, socialization enculturation. *Journal of Sex Research, 25*, 60–84.

Moyer, K. E. (1987). *Violence and aggression: A physiological perspective*. New York: Paragon House.

Mullins, C. W. (2006). *Holding your square: Masculinities, streetlife and violence*. Cullompton, UK: Willan Press.

Murray, C. J., & Lopez, A. D. (1997). Alternative projections of mortality and disability by cause 1990–2000: Global burden of disease study. *Lancet, 349*, 1498–1504.

Nansel, T. R., Overpeck, M., Pilla, R. S., Runa, W. J., Simons-Morton, B., & Scheidt, P. (2001). Bullying behaviors among US youth: Prevalence and association with psychological adjustment. *Journal of the American Medical Association, 285*, 2094–2100.

Narayan, D. (1999). *Bonds and bridges. Social capital and poverty.* Policy research working paper no. 2167. Washington, DC: World Bank.

National Crime Prevention. (1999). *Pathways to prevention: Developmental and early intervention approaches to crime in Australia.* Canberra, Australia: Australian Government Publishing Service. Available online at http://www.ag.gov.au

National Injury Surveillance Unit. (2004). *National Public Health Expenditure Report 2000–01*. Health and welfare expenditure series No. 18. Canberra: Australian Institute of Health and Welfare.

National Institute of Justice. (1999). *Arrestee drug abuse monitoring program: 1998 annual report on drug use among adult and juvenile arrestees*. Washington, DC: Author.

National Institute of Mental Health. (2006). *Helping children and adolescents cope with violence and disasters* (01-3518). Retrieved February 17, 2006, from http://www.nimh.nih.gov/publicat/violence.cfm

Neighbors, B. D., Forehand, R., & Bau, J. (1997). Interparental conflict and relations with parents as predictors of young adult functioning. *Developmental Psychopathology, 9*, 169–187.

Nhat Hanh, T. (2001). *The path of emancipation*. Berkeley, CA: Parallax Press.

Novaco, R. (1997). Remediating anger and aggression with violent offenders. *Legal and Criminological Psychology, 2*, 77–88.

Novaco, R. W., Ramm, M., & Black, L. (2001). *Anger treatment with offenders*. Chichester, UK: Wiley.

Nugent, W. R., Bruley, C., & Allen, P. (1999). The effect of aggression replacement training on male and female antisocial behavior in a runway shelter. *Research on Social Work Practice, 9*, 466–482.

Oakes, J. (1985). *Keeping track: How schools structure inequality*. New Haven, CT: Yale University Press.

O'Connell, P., Pepler, D., & Craig, W. (1999). Peer involvement in bullying: Insights and

    challenges for intervention. *Journal of Adolescence, 22*, 437–452.

O'Donnell, J., Hawkins, J. D., & Abbott, R. D. (1995). Predicting serious delinquency

    and substance use among aggressive boys. *Journal of Consulting and Clinical*

    Psychology, 63, 529–537.

Office of Education Council. (2004). *Education in Thailand, 2004*. Bangkok, Thailand:

    Ministry of Education.

Office of National Drug Control Policy. (1994). *Drug control strateg*y. Washington, DC:

    The White House.

Oh, I., & Hazler, R. (2009). Contributions of personal and situational factors to

    bystanders' reactions to school bullying. *School Psychology International, 30*,

    291–310.

Oliver, R., & Oaks, I. N. (1994). Family issues and interventions in bully and victim

    relationships. *School Counselor, 41*, 199–202.

Olson, S. L., Bates, J. E., Sandy, J. M., & Lanthier, R. (2000). Early developmental

    precursors to externalizing behavior in middle childhood and adolescence.

    Journal of Abnormal Child Psychology, 28, 119–133.

Olweus, D. (1978). *Aggression in the school: Bullying and whipping boys*. Washington,

    DC: Hemisphere.

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. 441–448)*.* Hillsdale, NJ:

    Erlbaum.

Olweus, D. (1993a). *Bullying at school: What we know and what we can do*. Cambridge, MA: Blackwell.

Olweus, D. (1993b). Victimization by peers: Antecedents and long-term consequences. In K. H. Rubin & J. B. Asendorpf (Eds.), *Social withdrawal, inhibition, and shyness in childhood* (pp. 315–341). Hillsdale, NJ: Lawrence Erlbaum.

Olweus, D. (1994). *Bullying at school: Long-term outcomes for the victims and an effective school-based intervention program*. New York: Plenum.

Olweus, D. (2001). Peer harassment: A critical analysis and some important issues. In J. Juvonen & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 3–20). New York: Guilford.

Orapins, P., & Kelder, S. (1995). Students for Peace Project. Second student evaluation. Unpublished report. Houston TX: University of Texas Health Science Center at Houston, School of Public Health .

Orcutt, H.K., Erickson, D.J., & Wolfe, J. (2002). A prospective analysis of trauma exposure: The mediating role of PTSD symptomatology. *Journal of Traumatic Stress, 15*, 259–266.

Orpinas, P. K., Basen-Engquist, K., Graunbaum, J. A., & Parcel, G. S. (1995). The comorbidity of violence-related behaviors with health-risk behaviors in a population of high school students. *Journal of Adolescent Health, 16*, 216–225.

Orpinas, P., Murray, N., & Kelder, S. (1999). Parental influences on students' aggressive behaviors and weapon carrying. *Health Education and Behavior*, *26*, 774–787.

Osofsky, H. J., & Osofsky, J. D. (2001). Violent and aggressive behaviors in youth: A

  mental health and prevention perspective. *Psychiatry Interpersonal and*

  Biological Processes, 64, 285–295.

Osofsky, J. D. (1999). The impact of violence on children. *Domestic Violence and*

  Children, 9, 33–49.

Ou, Y-S., & McAdoo, H. P. (1993). *Socialization of Chinese American children*. In H. P.

  McAdoo (Ed.), *Family ethnicity: Strength in diversity* (pp.245–270). Newbury

  Park, CA: Sage.

Overbeek, G., Vollebergh, W., Meeus, W., Engels, R., & Luipers, E. (2001). Course, co-

  occurence, and longitudinal associations of emotional disturbance and

  delinquency from adolescence to young adulthood: A six-year three-way study.

  Journal of Youth and Adolescence, 30, 401–426.

Owens, M. J., & Nemeroff, C. B. (1998). The serotonin transporter and depression.

  Depression and Anxiety, 8 (Suppl 1), 5–12.

Parke, R. D., & Buriel, R. (1998). Socialization in the family: Ethnic and ecological

  perspectives. In W. Damon & N. Eisenberg (Eds.), *Handbook of child*

  psychology: Vol. 3. Social,emotional, and personality development (pp. 463–

  552). New York: Wiley.

Parker, J. G., & Asher, S. R. (1987). Peer relations and later personal adjustment: Are

  low accepted children at risk? *Psychological Bulletin, 102*, 357–389.

Pateraki, L., & Houndoumadi, A. (2001). Bullying among primary school children in

  Athens, Greece. *Educational Psychology Review, 21*, 167–175.

Paternoster, R., & Mazerolle, P. (1994). General strain theory and delinquency: A

   replication and extension. *Journal of Research in Crime and Delinquency, 31*,

   235–263.

Patterson, G. R., DeBaryshe, B., & Ramsey, E. (1989). A developmental perspective on

   antisocial behavior. *American Psychologist, 44*, 329–335.

Patterson, G. R., Reid, J., & Dishion, T. J. (1992). *A social interactional approach:*

   Antisocial boys (Vol. 4). Eugene, OR: Castalia Publishing Company.

Patterson, G. R., & Stoolmiller, M. (1991). Replications of a dual failure model for boys'

   depressed mood. *Journal of Consulting and Clinical Psychology, 59*, 491–498.

Patterson, G. R., & Stouthamer-Loeber, M. (1984). The correlation of family

   management practices and delinquency. *Child Development, 55*, 1299–1307.

Patton, G. C., Coffey, C., Posterino, M., Carlin, J. B., & Bowes, G. (2003). Life events

   and early onset depression: Cause or consequence? *Psychological Medicine, 33*,

   1203–1210.

Pellegrini, A. D. (1998). Bullies and victims in school: A review and call for research.

   Journal of Applied Developmental Psychology, 19, 165–176.

Pellegrini, A. D., Bartini, M. , & Brooks, F. (1999). School bullies, victims, and

   aggressive victims: Factors relating to group affiliation and victimization in early

   adolescence. *Journal of Educational Psychology, 91*, 216–224.

Perales, A., & Sogi, C. (1995). *Conductas violentas en adolescentes: identificacion de*

   factores de riesgo paradiseno de programa preventivo [Violent behaviour among

   adolescents: identifying risk factors to design prevention programmes]. Lima,

   Peru: Cecosam.

Pfefferbaum, B., & Wood, P. B. (1994). Self-report study of impulsive and delinquent

behavior in college students. *The Journal of Adolescent Health, 15*, 295–302.

Piaget, J. (1965). *The moral judgment of the child*. New York: Free Press.

Pietrzak, D., Petersen, G. J., & Speaker, K. M. (1998). Perception of school violence by

elementary and middle school personnel. *Professional School Counseling, 1*, 23–

29.

Piquero, N. L., & Sealock, M. D. (2000). Generalizing general strain theory: An

examination of an offending population. *Justice Quarterly, 17*, 449–488.

Piquero, N. L., & Sealock, M. D. (2004). Gender and general strain theory: A

preliminary test of Broidy and Agnew's gender/GST hypotheses. *Justice*

Quarterly, 21, 125–158.

Pollard, J. A., Hawkins, J. D., & Arthur, M. W. (1999). Risk and protection: Are both

necessary to understand diverse behavioral outcomes in adolescence? *Social*

Work Research, 23, 145–158.

Powell, K. E., Dahlberg, L. L., Friday, J., Mercy, J. A., Thornton, T., & Crawford, S.

(1996). Prevention of youth violence: Rationale and characteristics of 15

evaluation projects. *American Journal of Preventive Medicine, 12*, 1–2.

Pradubmook-Sherer, P. (2011). Youth attitude toward dating violence in Thailand.

International Journal of Offender Therapy and Comparative Criminology, 55,

182–206. doi: 10.1177/0306624X09360659.

Pratt, J., & Dooley, D. (2000). The empirical status of Gottredson and Hirschi's general

theory of crime: A meta-analysis. *Criminology, 38*, 931–964.

Ptacek, J. (1988). Why do men batter their wives? In K. Yllo & M. Bograd (Eds.), *Feminist perspectives on wife abuse* (pp.133–157). Newbury Park, CA: Sage.

Putnam, R. D. (2000). *Bowling alone. The collapse and revival of American community*. London: Simon & Schuster.

Pynoos, R., Frederick, C., & Nader, K. (1987). Life threat and post-traumatic stress in school-age children. *Archives of General Psychiatry, 44*, 1057–1063.

Radke-Yarrow, M., Zahn-Waxler, C., & Chapman, M. (1983). Children's prosocial dispositions and behaviors. In P. H. Mussen (Ed.), *Handbook of child psychology: Vol. 4. Socialization, personality, and social development* (pp. 469–545). New York: John Wiley.

Radloff, L. S. (1977). CES–D scale: A self report depression scale for research in the general populations. *Applied Psychological Measurement 1*, 385–401.

Reiss, A., & Roth, J. A. (1993). *Understanding and preventing violence*. Washington, DC: National Academy Press.

Resnick, M. D., Bearman, P. S., Blum, R. W., Bauman, K. E., Harris, K. M., Jones, J., et al. (1997). Protecting adolescents from harm: Findings from the National Longitudinal Study on Adolescent Health. *Journal of the American Medical Association, 278*, 823–832.

Rhodes, J., & Jason, L. (1990). A social stress model of substance abuse. *Journal of Consulting and Clinical Psychology, 58*, 395–401.

Rich, J. A., & Stone, D. A. (1996). The experience of violent injury for young African-American men: The meaning of being a "sucker." *Journal of General Internal Medicine, 11*, 77–82.

Richmond, M., Spring, B., Sommerfeld, B. K., & McChargue, D. (2001). Rumination and cigarette smoking: A bad combination for depressive outcomes? *Journal of Consulting and Clinical Psychology, 69*, 33–39.

Richters, J. E., & Martinez, P. (1993). The NIMH community violence project: I. Children as victims of and witnesses to violence. *Psychiatry, 56*, 7–21.

Rigby, K. (2003). Consequences of bullying in schools. *Canadian Journal of Psychiatry, 48*, 583–590.

Rigby, K., Cox, I., & Black, G. (1997). Cooperativeness and bully/victim problems among Australian schoolchildren. *The Journal of Social Psychology, 137*, 357–368.

Rigby, K., & Slee, P. T. (1991). Bullying among Australian school children: Reported behavior and attitudes toward victims. *Journal of School Psychology, 131*, 615–627.

Rivers, I., & Smith, P. K. (1994). Types of bullying beaviour and their correlates. *Aggressive Behavior, 20*, 359–368.

Robins, L. (1966). *Deviant children grown up*. Baltimore: Williams & Wilkins.

Rodgers, D. (1999). *Living in the shadow of death: violence, pandillas and social disorganization in contemporary urban Nicaragua.* Cambridge, UK: Cambridge University Press.

Roeser, R. W., Eccles, J. S., & Sameroff, A. J. (2000). School as a context of early adolescents' academic and social–emotional development: A summary of research findings. *Elementary School Journal, 100*, 443–471.

Rosenfeld, R., Messner, S. F., & Baumer, E. P. (2001). Social capital and homicide. *Social Forces, 80*, 283–309.

Rosenthal, B. S. (2000). Exposure to community violence in adolescence: Trauma symptoms. *Adolescence, 35*, 271–284.

Rowe, R., Maughan, B., & Eley, T. C. (2006). Links between antisocial behavior and depressed mood: The role of life events and attributional style. *Journal of Abnormal Child Psychology, 34*, 293–302.

Royal Thai Police. (2009). Conference on prevention of students' fights (Report on July, 2009: Thai version). Bangkok: Bureau of Royal Thai Police, Thailand.

Ruangkanchanasetr, S., Plitponkarnpim, A., Hetrakul, P., & Kongsakon, R. (2005). Youth risk behavior survey: Bangkok, Thailand. *Journal of Adolescent Health, 36*, 227–235.

Ruchkin, V., Sukhodolsky, D. G., Vermeiren, R., Koposov, R. A., & Schwab-Stone, M. (2006). Depressive symptoms and associated psychopathology in urban adolescents: A cross-cultural study of three countries. *The Journal of Nervous and Mental Disease, 194*, 106–113.

Rudatsikira, E., Mataya, R. H., Siziya, S., & Muula, A. S. (2008). Association between bullying victimization and physical fighting among Filipino adolescents: results from the Global School-Based Health Survey. *Indian Journal of Paediatrics, 75*, 1243–1247.

Rudolph, K. D., Ladd, G., & Dinella, L. (2007). Gender differences in the interpersonal consequences of early-onset depressive symptoms. *Merrill–Palmer Quarterly, 53*, 461–488.

Rutherford, A., Zwi, A. B., Grove, N., & Butchart, A. (2007). Violence: A priority for

    public health? (Part 2). *Journal of Epidemiology and Community Health, 61*,

    764–770.

Salmivalli, C. (2001). Group view on victimization: Empirical findings and their

    implications. In J. Juvonen & S. Graham (Eds.), *Peer harassment in school: The*

    plight of the vulnerable and victimized (pp. 398–419). New York: Guilford.

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.

Salzberg, S. (1995). *Loving kindness: The revolutionary art of happiness*. Boston:

    Shambala Publications.

Sampson, R., & Lauritson, J. (1994). Violent victimization and offending: Individual-,

    situational-, and community-level risk factors. In A. J. Reiss & J. A. Roth (Eds.),

    Understanding and preventing violence. Vol. 3. Social influences (pp. 311–374).

    Washington, DC: National Academy Press.

Sampson, R. J., & Laub, J. H. (1993). *Crime in the making: Pathways and turning points*

    through life. Cambridge, MA: Harvard University Press.

Simons, R. L., Johnson, C., Beaman, J., Conger ,R. D.,& Whitbeck, L. B. (1996). Parents

    and peer group as mediators of the effect of community structure on adolescent

    problem behavior. *American Journal of Community Psychology*, *24*,15-171.

Saunders, B. E. (2003). Understanding children exposed to violence: Toward an

    integration of overlapping fields. *Journal of Interpersonal Violence, 18*, 356–376.

Scarpa, A. (2001). Community violence exposure in a young adult sample: Lifetime prevalence and socioemotional effects. *Journal of Interpersonal Violence, 16*, 36–53.

Scarpa, A., Haden, S. C., & Hurley, J. (2006). Community violence, victimization and symptoms of Posttraumatic Stress Disorder: The moderating effects of coping and social support. *Journal of Interpersonal Violence, 21*, 446–469.

Schwab-Stone, M., Ayers, T. S., Kasprow, W., Voyce, C., Barone, C., Shriver, T., & Weissberg, R. P. (1995). No safe haven: A study of violence exposure in an urban community. *Journal of the American Academy of Child and Adolescent Psychiatry, 34*, 1343–1352.

Schwab-Stone, M., Chen, C., Greenberger, E., Silver, D., Lichtman, J., & Voyce, C. (1999). No safe haven II: The effects of violence exposure on urban youth. *Journal of the American Academy of Child and Adolescent Psychiatry, 38*, 359–367.

Schwartz, D., Dodge, K. A., Coie, J. D., Hubbard, J. A., Cillessen, A. H., Lemerise, E.A., & Bateman, H. (1998). Social–cognitive and behavioral correlates of aggression and victimization in boys' play groups. *Journal of Abnormal Child Psychology, 26*, 431–440.

Schwartz, D., Hopmeyer-Gorman, A., Nakamoto, J., & Tobin, R. L. (2005). Victimization in the peer group and children's academic functioning. *Journal of Educational Psychology, 97*, 425–435.

Sealock, M. D., Gottfredson, D. C., & Gallagher, C. A. (1997). Drug treatment for

juvenile offenders: Some good and bad news. *Journal of Research in Crime and Delinquency, 34*, 210–236.

Segal, B., & Stewart, J. (1996). Substance use and abuse in adolescence: An overview.

Journal of Research in Crime and Delinquency, 31, 3–31.

Semple, S. J., Zians, J., Strathdee, S. A., & Patterson, T. L. (2007). Psychosocial and

behavioral correlates of depressed mood among female methamphetamine users. *Journal of Psychoactive Drugs, Supplement 4*, 353–366.

Shakoor, B. H., & Chalmers, D. (1991). Co-victimization of African–American children

who witness violence: Effects on cognitive, emotional, and behavioral development. *Journal of the National Medical Association, 83*, 233–238.

Sharp, S., & Smith, P. K. (1994). *Tackling bullying in your schools: A practical

handbook for teachers*. London: Routledge.

Shearer, R. A., & Ogan, G. D. (2002). Voluntary participation and treatment resistance in

substance abuse treatment programs. *Journal of Offender Rehabilitation, 34*, 31–45.

Sheeber, L.B., Hops, H., & Davis, B. (2001). Family processes in adolescent depression.

Clinical Child and Family Psychology Review, 4, 19–35.

Sheeber, L. B., & Sorensen, E. (1998). Family relationships of depressed adolescents: A

multimethod assessment. *Journal of Clinical Child Psychology, 27*, 268–277.

Siennick, S. E. (2007). The timing and mechanisms of the offending–depression link.

Criminology, 45, 583–615.

Sigfusdottir, I., Farkas, G., & Silver, E. (2004). The role between depressed mood and

    anger in the relationship between family conflict and delinquent behavior.

    Journal of Youth and Adolescence, 32, 509–522.

Simon, H. A. (1979). Rational decision making in business organizations. *American*

    Economic Review, 69, 493–513.

Simpson, T. L., Kaysen, D., Bowen, S., MacPherson, L. M., Chawla, N., & Blume, A.

    (2007). PTSD symptoms, substance use, and vipassasa meditation among

    incarcerated individuals. *Journal of Traumatic Stress, 20*, 239–249.

Singer, M., & Flannery, D. J. (2000). The relationship between children's threats of

    violence and violent behaviours. *Archives of Pediatric and Adolescent Medicine,*

    154, 785–790.

Singer, M. I., Anglin, T. M., Song, L. Y., & Lunghofer, L. (1995). Adolescents' exposure

    to violence and associated symptoms of psychological trauma. *Journal of the*

    American Medical Association, 273, 477–482.

Singh, N. N., Winton, A. S. W., Singh, J., McAleavey, K., Wahler, R. G., & Sabaawi, M.

    (2006). Mindfulness-based caregiving and support. In J. K. Luiselli (Ed.),

    Antecedent intervention: Recent developments in community focused behavior

    support (pp. 269–290). Baltimore: Brookes.

Skelton, C. (2001). Typical boys? Theorizing masculinity in educational settings. In B.

    Francis & C. Skelton (Eds), *Investigating gender. Contemporary perspectives in*

    education (pp. 164–176). Buckingham, UK: Open University Press.

Slaby, R.G. (1997). Psychological mediators of violence in urban youth . In J. McCord (Ed.), *Violence and childhood in the inner city* (pp. 171–206). New York: Cambridge University Press.

Slaby, R. G., Wilson-Brewer, R., & DeVos, E. (1994). *Aggressors, victims, and bystanders: An assessment-based middle school violence prevention curriculum.* Springfield, VA: National Technical Information Service.

Slee, P. T. (1995). Bullying on the playground: The impact of interpersonal violence on Australian children's perceptions of their play environment. *Children's Environments, 12*, 273–282.

Smith, C., & Krohn, M. D. (1995). Delinquency and family life among male adolescents: The role of ethnicity. *Journal of Youth and Adolescence, 24*, 69–93.

Smith, C., & Thornberry, T. P. (1995). The relationship between childhood maltreatment and adolescent involvement in delinquency. *Criminology, 33*, 451–481.

Smith, D. (1990). *Caught in the crossfire: A report on gun violence on our nation's schools.* Washington, DC: Center to Prevent Handgun Violence. (ERIC Document Reproduction Service No. ED 325950).

Smith, P. K., Bowers, L., Binney, V., & Cowie, H. (1993). Relationships of children involved in bully/victim problems at school . In S. Duck (Ed.), *Learning about relationships* (pp. 184–204). Newbury Park, CA: Sage.

Smith, P. K., Shu, S., & Madsen, K. (2004). *Characteristics of victims of school bullying: Developmental changes in coping strategies and skills*. New York: Guilford.

Smith-Khuri, E., Iachan, R., Scheidt, P. C., Overpeck, M. D., Grabhainn, S. N., Pickett, W., & Harel, Y. (2004). A cross-national study of violence-related behaviors in adolescents. *Archives of Pediatric and Adolescent Medicine, 158*, 539–544.

Smokowski, P. R., & Kopasz, K. H. (2005). Bullying in school: An overview of types, effects, family characterisitics, and intervention strategies. *Children & Schools 27*, 101–110.

Snyder, J., & Patterson, G. R. (1987). *Family interaction and delinquent beahvior*. New York: John Wiley.

Solomon, B. S., Bradshaw, C. P., Wright, J., & Cheng, T. L. (2008). Youth and parental attitudes toward fighting. *Journal of Interpersonal Violence, 23*, 544–560.

Soriano, M., & Soriano, F. I. (1994). School violence among culturally diverse populations: Sociocultural and institutional considerations. *School Psychology Review, 23*, 216–235.

Spanagel, R., & Weiss, F. (1999). The dopamine hypothesis of reward: Past and current status. *Trends in Neuroscience, 22*, 521–527.

Spielberger, C. D. (1999). *Manual for the State–Trait Anger Expression Inventory-2*. Odessa, FL: Psychological Assessment Resources.

Spielberger, C. D., Johnson, E. H., Russell, S. F., Crane, R. J., Jacobs, G. A., & Worden, T. J. (1985). *The experience and expression of anger: Construction and validation of anger expression scale*. New York: Hemisphere.

Spielberger, C. D., & Sydeman, S. J. (1994). *State–Trait Anger Inventory and State–Trait Anger Expression Inventory*. In M. E. Maruish (Ed.), *The use of*

psychological testing for treatment planning and outcome assessment (pp. 292–
321)*. Hillsdale, NJ: Lawrence Erlbaum.

Sprague, J., Walker, H., Golly, A., White, K., Meyers, D. R., & Shannon, T. (2001).
Translating research into effective practice: The effects of a universal staff and
student intervention on indicators of discipline and school safety. *Education and
Treatment of Children, 24*, 495–511.

Sprex-Varoquaux, O., Alvarez, J-C., Berline, I., Batista, G., Despierre, P-G., Gilton, A.,
& Cremniter, D. (2001). Differential abnormalities in plasma 5-HIAA and
platelet serotonin concentrations in violent suicide attempters. Relationships with
impulsivity and depression. *Life Science, 69*, 647–657.

Sprott, J. B. (2004). The development of early delinquency: Can classroom and school
climates make a difference? *Canadian Journal of Criminology and Criminal
Justice, 46*, 553–572.

St. Leger, L. H. (1999). The opportunities and effectiveness of the health promoting
primary school in improving child health: A review of the claims and evidence.
Health Education Research, 14, 51–65.

Steffensmeier, D., & Allan, E. (1996). Gender and crime: Toward a gendered theory of
female offending. *Annual Review of Sociology, 22*, 459–488.

Steiner, H., Garcia, I. G., & Matthews, Z. (1997). Post-traumatic stress disorder in
incarcerated juvenile delinquents. *Journal of the American Academy of Child and
Adolescent Psychiatry, 36*, 357–365.

Stephens, R. D. (1998). Safe school planning . In D. S. Elliott, B. A. Hamburg, & K. R. Williams (Eds.) *Violence in American schools* (pp. 253–289). New York: Cambridge University Press.

Storch, E. A., Nock, M. K., Masia-Warner, C., & Barlas, M. E. (2003). Peer vicimization and social–psychological adjustment in Hispanic and African American children. *Journal of Child and Family Studies, 12*, 439–452.

Straus, M. A., & Gelles, R. J. (1990). *Physical violence in American families: Risk factors and adaptaions to violence in 8,145 familes*. New Brunswick, NJ: Transaction Publishers.

Strauss, A. L. and Corbin, J. (1998) *Basics of qualitative research: Techniques and procedures for developing grounded theory*. London: Sage Publications.

Studer, J. (1996). Understanding and preventing aggressive responses in youth. *Elementary School Guidance and Counseling, 30*, 194–204.

Sugai, G., Sprague, J., Horner, R., & Walker, H. (2000). Preventing school violence: The use of office referral to assess and monitor school-wide discipline interventions. *Journal of Emotional and Behavioral Disorders, 8*, 94–101.

Svensson, R. (2003). Gender differences in adolescent drug use: The impact of parental monitoring and peer deviance. *Youth and Society, 34*, 300–329.

Swahn, M. H., & Donovan, J. E. (2004). Correlates and predictors of violent behavior among adolescent drinkers. *Journal of Adolescent Health, 34*, 480–492.

Swann, A. C., Steinberg, J. L., Lijffijt, M., & Moeller, F. G. (2007). Impulsivity: Differential relationship to depression and mania in bipolar disorder. *Journal of Affective Disorders, 106*, 241–248.

Szreter, S., & Woolcook, M. (2004). Health by association? Social capital, social theory and the political economy of public health. *International Journal of Epidemiology, 33*, 650–667.

Tang, Y. Y., Ma, Y., Wang, J., Fan, Y., Feng, S., & Lu, Q., et al. (2007). Short-term meditation training improves attention and self-regulation. *Proceedings of the National Academy of Sciences, 104*, 17152–17156.

Tangney, J. P., Miller, R. S., Flicker, L., & Barlow, D. H. (1996). Are shame, guilt, and embarrassment distinct emotions? *Journal of Personality and Social Psychology, 70*, 1256–1269.

Taylor, R. (1990). Interpretation of the correlation coefficient: A basic review. *Journal of Diagnostic Medical Sonography, 6*, 35–39.

Teasdale, J. D., Scott, J., Moore, R. G., Hayhurst, H., Pope, M., & Paykel, E. S. (2001). How does cognitive therapy prevent relapse in residual depression? Evidence from a controlled trial. *Journal of Consulting and Clinical Psychology, 69*, 347–357.

Tedeschi, J. T., & Felson, R. B. (1994). *Violence, aggression, and coercive actions*. Washington, DC: American Psychological Association.

Tedeschi, J. T., & Nesler, M. S. (1993). *Grievances: Development and reaction*. Washington, DC: American Psychological Association.

Terasaki, D. J., Gelaye, B., Berhane, Y., & Williams, M. A. (2009). Anger expression, violent behavior, and symptoms of depression among male college students in Ethiopia. *BMC Public Health, 9*, doi: 10.1186/1471-2458-1189-1113.

Thomas, R. M. (1997). *Moral development theories–secular and religious. A comparative study*. Westport, CT: Greenwood.

Thomas, S. P., & Atakan, S. (1993). Trait anger, anger expression, stress, and health status of American and Turkish midlife women. *Health Care for Women International, 14*, 129–143.

Thomas, S. P., & Smith, H. (2004). School connectedness, anger behaviors, and relationships of violent and nonviolent American youth. *Perspectives in Psychiatric Care, 40*, 135–148.

Thompson, D., & Sharp, S. (1998). The dynamics of victimisation and rejection in school. In D. Thompson & S. Sharp (Eds.), *Improving schools: Establishing and integrating whole school behavior policies* (pp. 11–25). London: David Fulton.

Thornberry, T. P. (1996). Empirical support for interactional theory: A review of the literature. In J. D. Hawkins (Ed.), *Delinquency and crime: Current theories* (pp. 198–235). New York: Cambridge University Press.

Thornberry, T. P., Huizinga, D., & Loeber, R. (1995). *The prevention of serious delinquency and violence: Implications from the program of research on the causes and correlates of delinquency*. Thousand Oaks, CA: Sage.

Thornberry, T. P., Lizotte, A.J., Krohn, M. D., Lizotte, A. J. , Krohn, M. D., Farnworth, M., & Jang, S. J. (1994). Delinquent peers, beliefs, and delinquent behavior: A longitudinal test of interactional theory. *Criminology 32*, 601–637.

Tolan, P. H. (1988). Socioeconomic, family, and social stress correlates of adolescent antisocial and delinquent behavior. *Journal of Abnormal Child Psychology, 16*, 317–331.

Trangkasombat, U., Larpboonsarp, V., & Havanond, P. (1997). CES-D as a screen for

    depression in adolescents *Journal of the Psychiatric Association in Thailand, 42*,

    2–13.

Tremblay, R. E. (2000). The development of aggressive behaviour during childhood:

    What have we learned in the past century? *International Journal of Behavioral*

    Development 24, 129–141.

Tremlow, S. W., Sacco, F. C., & Williams, P. (1996). A clinical and interactionist

    perspective on the bully–victim–bystander relationship. *Bulletin of the Menninger*

    Clinic, 60, 296–313.

Tyler, J. M., & Burns, K. C. (2008). After depletion: The replenishment of the self's

    regulatory resources. *Self and Identity, 7*, 305–321.

 Underwood, M. K. (2003). *Social aggression among girls*. New York: Guilford.

US Department of Education. (1999). *Annual report on school safety*. Washington, DC:

    U.S. Department of Education, pp. 1–66.

US Department of Justice [USDHHS]. (2001). Four measures of serious violent crime.

    Available at www.ojp.usdoj.gov/bjs/glance/tables/4meastab.htm

Van Voorhis, P., Cullen, F. T., Mathers, R. A., & Garner, C. C. (1988). The impact of

    family structure and quality on delinquency: A comparative assessment of

    structural and functional factors. *Criminology, 26*, 235–261.

Vazsonyi, A. T., Vesterdal, W. J., Flannery, D. J., & Belliston, L. M. (1999). The utility

    of child self reports and teacher ratings in classifying children's official

    delinquency status. *Studies of Crime and Crime Prevention, 8*, 1–20.

Verlinden, S., Hersen, M., & Thomas, J. (2000). Risk factors in school shootings. *Clinical Psychology Review, 20*, 3–56.

Viemero, V. (1996). Factors in childhood that predict later criminal behavior. *Aggressive Behavior, 22*, 87–97.

Violence Institute of New Jersey. (2001). *New Jersey drug and violence preventon data collection (USDE Final Report)*. Newark, NJ: Author.

Vocational Education Commission. (2010). College in Office of Vocational Educational Commission. Retrieved from http: //www. vec.go.th/doc/DirectorStr/college_eng.php April 16, 2010.

Vögele, C., Jarvis, A., & Cheeseman, K. (1997). Anger suppression, reactivity, and hypertension risk: Gender makes a difference. *Annals of Behavioral Medicine, 19*, 61–69.

Walker, H. M., Ramsey, E., & Gresham, F. M. (2004). *Antisocial behavior in school: Evidence-based practices*. Belmont, CA: Wadsworth/Thomson.

Warner, B. S., Weist, M. D., & Krulak, A. (1999). Risk factors for school violence. *Urban Education, 34*, 52–68.

Warner, T. D., Krebs, C. P., & Fishbein, D. H. (2008). Perceiving the risk of substance use: The roles of nativity, acculturation, and family support among Hispanic children. *Journal of Drug Issues, 38*, 119–148.

Warr, M. (2002). *Comparisons in crime: The social aspects of criminal conduct.* Cambridge, MA: Cambridge University Press.

Weinberg, K. M., & Tronick, E. Z. (1997). *Maternal depression and infant maladjustment: a failure of mutual regulation*. New York: Wiley.

Weinshenker, N. J., & Siegel, A. (2002). Bimodal classification of aggression: Affective defense and predatory attack. *Aggression and Violent Behavior, 7*, 237–250.

Wells, L. E., & Rankin, J. (1995). Juvenile victimization: Convergent validation of alternative measurements. *Journal of Research in Crime and Delinquency, 32*, 287–307.

West, C., & Zimmerman, D. H. (1987). Doing gender. *Gender & Society, 1*, 125–151.

Whitney, I., & Smith, P. K. (1993). A survey of the nature and extent of bullying in junior/middle and secondary schools. *Educational Researcher, 35*, 3–25.

Widom, C., & Brzustowicz, L. (2006). MAOA and the 'cycle of violence': Childhoold abuse and neglect, MAOA genotype, and risk for violent and antisocial behavior. *Biological Psychiatry, 60*, 684–689.

Wikström, P. H., & Loeber, R. (2000). Do disadvantaged neighborhoods cause well-adjusted children to become adolescent delinquents? A study of male juvenile serious offending, individual risk and protective factors, and neighborhood context. *Criminology, 38*, 1109–1142.

Williams, J. H. (1994). *Understanding substance use, delinquency involvement, and juvenile justice system involvement among African–American and European–American adolescents.* Seattle, WA: University of Washigton.

Williams, J., Pignone, M., Ramirez, G., & Stellato, C. (2002). Identifying depression in primary care: A literature synthesis of case-finding instruments. *General Hospital Psychiatry, 24*, 225–237.

Wilson, S, J., Lipsey, M. W., & Derzon, J. H. (2003). The effects of school-based interventions programs on aggressive behavior: A meta-analysis. *Journal of Counseling and Clinical Psychology, 71*, 136–149.

Witoonchart, C., & Bartlet, L. (2002). The use of a meditation programme for institutionalized juvenile delinquents. *Journal of the Medical Association of Thailand, 85*, S790–S793.

Wolke, D., Woods, S., Bloomfield, L., & Karstadt, L. (2000). The association between direct and relational bullying and behaviour problems among primary school children. *Journal of Child Psychology and Psychiatry, 41*, 989–1002.

Wolpe, J. (1973). *The practice of behavior therapy* (2nd ed.). Elmsford, NY: Pergamon.

Wongtongkam, N., Ward, P. R., Day, A., & Winefield, A. H. (in press). Student perspectives on the reasons for physical violence in a Technical college : An exploratory. J*ournal of Primary Prevention.*

World Health Assembly. (1996). *Resolution WHA49.25. Preventing violence: a public health priority*. Geneva, Switzerland: World Health Organization.

World Health Assembly. (2003). *Resolution WHA56.24. Implementing the recommendations of the world report on violence and health*. Geneva, Switzerland: World Health Organization.

World Health Organization. (1996). *Global consultation on violence and health. Violence: a public health priority*. Geneva, Switzerland: author.

World Health Organization. (2002). *World report on violence and health*. Geneva, Switzerland: author.

World Health Organization. (2004). *Guidelines on community surveys on injuries and violence*. Geneva, Switzerland: author. Retrieved from http://www.who.int/violence_injury_prevention/publications/06_09_2004/en/index.html

World Health Organization–Europe. (2008). *European report on child injury prevention*, Available at: http://www.who.int/violence_injury_prevention/child/injury/world_report/ European_report.pdf

World Health Organization–Kobe Centre. (2007). *National report on violence and health Thailand*. Kobe, Japan: World Health Organization Centre for Health Development, WHO/WKC/Tech.Ser./05.4.

Wright, R. B., Caspi, A., Moffitt, T. E., & Silva, P. A. (1999). Low self-control, social bonds, and crime: Social causation, social selection, or both? *Criminology, 37*, 479–514.

Yamamoto, J., & Wagatsuma, H. (1980). The Japanese and Japanese Americans. *Journal of Operational Psychiatry, 11*, 120–135.

Yang, S. J., Kim, J. M., Kim, S. W., Shin, I. S., & Yoon, J. S. (2006). Bullying and victimization behaviors in boys and girls at South Korean primary schools. *Journal of the American Academy of Child and Adolescent Psychiatry, 45*, 69–77.

Yue, M.(1993). *Family relationships, broken homes, acculturation and delinquency inChinese-American communities*. Unpublished doctoral dissertation, Rutgers State University of New Jersey–Newark.

Zaya, L.H., Torres, L.R., Malcolm, J., & Des Rosiers, F.S. (1996). Clinicians' definitions of ethnically sensitive therapy. *Professional Psychology: Research and Practice, 27*, 78–82.

Zimmerman, M. A., Steinman, K. J., & Rowe, K. J. (1998). Violence among urban African American adolescents: The protective effects of parental support. In In X. B. Arriaga & S. Oskamp (Eds.), *Addressing community problems: Psychological research and interventions* (pp. 78–103). Thousand Oaks, CA: Sage.

Zingraff, M., Leiter, J., Johnson, M., & Myers, K. (1994). The mediating effect of good school performance on the maltreatment–delinquency relationship. *Journal of Research in Crime and Delinquency, 31*, 62–91.

APPENDICES

AND A MANUSCRIPT

SOCIAL AND BEHAVIOURAL RESEARCH ETHICS COMMITTEE

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FINAL REPORT ACKNOWLEDGMENT

Principal Researcher: | Ms Nualnong Wongtongkam

Email: | wong0453@flinders.edu.au

Address: | Discipline of Public Health

Project Title: | Risk factors on youth violence in technical colleges, Thailand

Project No.: | **4880**

The Final Report for the above project has been received by the Committee. No more reports are required for this project.

If you should decide to collect more data for the same purposes you will need to submit a new application.

Should you have any queries please feel free to contact me.

Yours sincerely

Andrea Mather
Executive Officer
Social and Behavioural Research Ethics Committee
30 January 2012

cc: Prof Paul Ward, paul.ward@flinders.edu.au

Professor Paul Ward
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CRICOS Provider No. 00114A

LETTER OF INTRODUCTION

Dear Parent/Guardian

This letter is to introduce Ms Nualnong Wongtongkam who is a Ph.D. student in the Discipline of Public Health at Flinders University.

She is undertaking research leading to the production of a thesis or other publications on the subject of "Risk factors on youth violence in technical colleges, Thailand".

She would be most grateful if you would volunteer to assist in this project, by granting your children being interviewed which covers certain aspects of youth violence. No more than half an hour would be required by telephone interview.

Be assured that any information provided will be treated in the strictest confidence and none of the participants will be individually identifiable in the resulting thesis, report or other publications.

Since she intends to make a tape recording of the interview, she will seek your consent, on the attached form, to record the interview, to use the recording or a transcription in preparing the thesis, report or other publications, on condition that your name or identity is not revealed, and to make the recording available to other researchers on the same conditions.

Any enquiries you may have concerning this project should be directed to me at the address given above or by telephone on +61 8722 18415, by fax on +61 8722 18424 or by email (Paul.Ward@flinders.edu.au).

Thank you for your attention and assistance.

Yours sincerely,

Prof. Paul Ward

Head, Discipline of Public Health

Faculty of Health Science, Flinders University

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project No. 4880). For more information regarding ethical approval of the project the Executive Office of the Committee can be contacted by telephone +61 8201 3116, by fax on +61 8201 2035 or by e-mail human.researchethics@flinders.edu.au

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CRICOS Provider No. 00114A

Letter to College Principal

Dear Sir/Madam

This letter is to introduce Ms Nualnong Wongtongkam who is a Ph.D. student in the Discipline of Public Health at Flinders University, Australia. She is undertaking research leading to the production of a thesis or other publications on the subject of "Risk factors on youth violence in technical colleges, Thailand".

This study aims to undertake a qualitative study with a view to develop school based intervention and to understand why young men in Thai colleges engage in violent behaviours. I would be grateful if you are taking part in this research by permission to your students be interviewed a youth topic. Be insured that the research study is met the requirements of the Research Ethical Committees at Flinders University.

The interview should be taken approximately 30 minutes by the telephone interview, and the conversation will be recorded. Be assured that any information provide will be treated in the strictest confidence and none of the participants will be individual identifiable in the resulting of thesis, report, or other publications.

Permission will be sought from the students and their parents to their participation in the research. Only one who consent and whose parents consent will participate. Participants may withdraw from the study at any time without penalty. The role of the college in voluntary and the College Principal may decide to withdraw the college's participation at any time without penalty.

Once, I received your permission to approach students to participate in the study, I will arrange for informed consent to be obtained from participants' parents and participants. Additionally, I will set up a time with your school for interview to take place.

Thank you for your cooperation and assistance

Your Sincerely,

Prof. Paul Ward

Head, Discipline of Public Health

Faculty of Health Science, Flinders University

CONSENT FORM FOR PARTICIPATION IN RESEARCH

(by interview)

I …..

being the age of 16-18 year olds hereby consent to participate as requested in the study for the research project on risk factors on youth violence in technical colleges, Thailand.

1.   I have read the information provided.

2.   Details of procedures and any risks have been explained to my satisfaction.

3.   I agree to audio recording of my information and participation.

4.   I understand that:

- I may not directly benefit from taking part in this research.
- I am free to withdraw from the project at any time and am free to decline to answer particular questions.
- While the information gained in this study will be published as explained, I will not be identified, and individual information will remain confidential.
- Whether I participate or not, or withdraw after participating, will have no effect on my progress in my course of study, or results gained.
- I may ask that the recording be stopped at any time, and that I may withdraw at any time from the session or the research without disadvantage.

5.   I have had the opportunity to discuss taking part in this research with a family member or friend.

Participant's signature………………………………….………Date……………..………...

Parent/Guardian signature ……………………………….……Date……………..………...

I certify that I have explained the study to the volunteer and consider that he understands what is involved and freely consents to participation.

Researcher's name……………………………………………….....................................

Researcher's signature………………………………………….…..Date……………..…….……

CONSENT FORM FOR PARTICIPATION IN RESEARCH
(by interview)

I …..

Being over the age of 18 year olds hereby consent to participate as requested in the study for the research project on risk factors on youth violence in technical colleges, Thailand.

1.   I have read the information provided.

2.   Details of procedures and any risks have been explained to my satisfaction.

3.   I agree to audio recording of my information and participation.

4.   I understand that:

- I may not directly benefit from taking part in this research.
- I am free to withdraw from the project at any time and am free to decline to answer particular questions.
- While the information gained in this study will be published as explained, I will not be identified, and individual information will remain confidential.
- Whether I participate or not, or withdraw after participating, will have no effect on my progress in my course of study, or results gained.
- I may ask that the recording be stopped at any time, and that I may withdraw at any time from the session or the research without disadvantage.

5.   I have had the opportunity to discuss taking part in this research with a family member
     or friend.

Participant's signature…………………………….………Date……………..………...

Parent/Guardian signature ……………………….……Date……………..………...

I certify that I have explained the study to the volunteer and consider that he understands what is involved and freely consents to participation.

Researcher's name……………………………………………….....................................

Researcher's signature……………..……………….…..Date……………..……..…….

Interview questions

A father is influenced on youth personality.

1. Could you please tell me what is your family backgrounds (father-mother careers, education) ?
2. What is your father-mother personalities ?
3. If the family want to make decision with something - who has the authority to make the final decision ?
4. How often do parents having arguments ?

Performing personality

1. What the activity you do after finish a class every day ?
2. What is your hobby ?
3. What is the sport your like ?
4. How often do you go to temple for religious activities ?
5. What is the future you expect to be ?
6. Who will you discuss with when you get any troubles ?

Peer factors

1. How many close friends do you have ?
2. What activities you do when you hang out with your friends ?
3. Who is decide what to do among your friends ?

Violence (Physical fight)

1. During the last year, how often did you engage physical fighting ?
2. What injuries did you get during physical fighting ?
3. What did you feel before and after physical fighting ?
4. How often have you be bullying your friends ?
5. What is it happen after bullying ?

Substance abuse

1. How often have you drunk alcohol a week ?
2. How many cigarette do you smoke a day ?
3. Have you ever been smoke marijuana or take an amphetamine ?

School bonding

1. Could you please tell me about your teachers in the school and you school ?
2. How often have you absence from your classroom ?
3. What is the reason for your absence ?
4. What do you want more from the school ?

Community

1. Could you please tell me what is the characteristics of your community ?
2. Do you think you live in a community safety ?

Flinders University and Southern Adelaide Local Health Network

SOCIAL AND BEHAVIOURAL RESEARCH ETHICS COMMITTEE

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FINAL REPORT ACKNOWLEDGMENT

Principal Researcher: | Ms Nualnong Wongtongkam

Email: | wong0453@flinders.edu.au

Address: | Discipline of Public Health

Project Title: | Validity of questionnaires to measure risk factors on youth violence in technical colleges, Thailand

Project No.: | **4972**

The Final Report for the above project has been received by the Committee. No more reports are required for this project.

If you should decide to collect more data for the same purposes you will need to submit a new application.

Should you have any queries please feel free to contact me.

Yours sincerely

Andrea Mather
Executive Officer
Social and Behavioural Research Ethics Committee
11 November 2011

cc: Prof Paul Ward, paul.ward@flinders.edu.au
        A/Prof Andrew Day, andrew.day@deakin.edu.au

inspiring
achievement

Flinders University

SOCIAL AND BEHAVIOURAL RESEARCH ETHICS COMMITTEE

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FINAL REPORT ACKNOWLEDGMENT

Principal Researcher: | Ms Nualnong Wongtongkam

Email: | wong0453@flinders.edu.au

Address: | Discipline of Public Health

Project Title: | Exploring risk factors on youth violence and evaluating the effectiveness of intervention programs to reduce violence in technical college students, Thailand

Project No.: | **5027**

The Final Report for the above project has been received by the Committee. No more reports are required for this project.

If you should decide to collect more data for the same purposes you will need to submit a new application.

Should you have any queries please feel free to contact me.

Yours sincerely

Andrea Mather
Executive Officer
Social and Behavioural Research Ethics Committee
30 January 2012

cc: Prof Paul Ward, paul.ward@flinders.edu.au
        Prof Andrew Day, andrew.day@deakin.edu.au

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CRICOS Provider No. 00114A

Participant Information Sheet (Cross-Sectional Study)

Introduction

Interpersonal violence is a major cause of injuries and deaths in Thailand. Adolescents are a major group to involve in physical assault, and the arrested rates in adolescents increase gradually in each year. With respect to the adolescent reports, most young people who are arrested in Bangkok, are students from technical colleges where nearly 90% of them are men.

The study is designed to search for risk factors (individuals, peers, families, schools and communities) related to physical fight experiences, and assessed anger levels and depressive symptoms associated with the physical fights. As far as I know, there is no report to explore the youth violence in this population.

Description of study procedure

To access sample population, the cluster sampling technique will be administered by selecting two classrooms within two departments (one classroom per one department) from 5 departments in each Vocational Certificate year level (I-III). The introductory meeting will be set up for providing research information and distributed an information package (information sheet, letter of introduction and consent form) to students in the classrooms at the week before conducting the survey. Place and time will be arranged by a teacher assistant, and he/she will inform students about the day of complete questionnaires in the classroom. Participants who are willing participation in the study will attend the classroom on the appointment day with submitting informed consent. Informed consents will be signed by parents and participants with students under 18 years of age. Questionnaires will be distributed and collected by the researcher.

Nearly 350 students (50-60 students per a classroom) will be recruited to participate their experiences on physical fights and assess psychological disorders (anger and depression) by using self-assessments. CTC Youth Survey questionnaire is involved risk and protective factors (individuals, peers, families, schools, communities), and STXI-2 is determined anger level. Violent definition and classification of violent behaviours (offender, witness and victim) will be measured, also CESD (Center for Epidemiologic Studies Depression Scale) is used to determine depressive symptoms. In the morning of the survey, there are 4 questionnaires will be completed, including violent definition and violent behaviours, STAXI-2, and CESD, with approximately 30 minutes. CTC Youth Survey will be filled up in the afternoon at the same day for approximately 30-40 minutes.

Risk and benefits of participation

There are some risks involved in participation of this study such as anxiety or stress, so youths have the right to withdraw the session by walking out from the classroom at any time. Additionally, there are school counsellors and a psychologist to help participants being minimized problems, and a free hotline service for children and youths called metal health services 1667 from Ministry of Public Health.

Voluntary participation and confidentially

The participants in this study are completely voluntary. The study is concerned to disclose participants' names and addresses, and participants are free to withdraw without filling up questionnaires at any time without penalty. All questionnaires associated with participants' information will be strictly confidential. The data involved in illegal activities (substance abuses and crimes) will be exposed under participants' codes that their names or identities are not be revealed.

Costs and Payments

Participants will be given a reimbursement for their effort and time with 100 Thai Bath ($ AUD 3.50).

Contact Persons

For more information concerning this study, please contact :

Dr. Nualnong Wongtongkam, Ph.D. student, Faculty of Health Science, Discipline of Public Health, Flinders University, South Australia 5001.

If participants have any questions about their rights as a research subject, they could contact Prof. Paul Ward, Head-Discipline of Public Health [Chair- Flinders Social and Behavioral Research Ethics Committee], Health Science Building, Registry Road Flinders University, GPO Box 2100, Adelaide 5001, Australia.

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CRICOS Provider No. 00114A

LETTER OF INTRODUCTION (Cross-sectional study)

Dear Sir

This letter is to introduce Dr. Nualnong Wongtongkam who is a Ph.D. student in the Discipline of Public Health at Flinders University.

She is undertaking research leading to the production of a thesis or other publications on the subject of "Exploring risk factors on youth violence and evaluating the effectiveness of intervention programs to reduce violence in technical college students, Thailand."

She would be most grateful if you would volunteer to assist in this project, by granting a complete questionnaire which covers certain aspects of youth violence. No more than one hour to complete questionnaires would be required.

Be assured that any information provided will be treated in the strictest confidence and none of the participants will be individually identifiable in the resulting thesis, report or other publications. The data involved in illegal activities (substance abuses and crimes) will be exposed under participants' nicknames that their names or identities are not be revealed. You are, of course, entirely free to withdraw your participation without complete questionnaires at any time without penalty.

She will seek your and parental consent, on the attached form, to use the data from questionnaires in preparing the thesis, report or other publications, on condition that your name or identity is not revealed.

Any enquiries you may have concerning this project should be directed to me at the address given above or by telephone on +61 8722 18415, by fax on +61 8722 18424 or by email (Paul.Ward@flinders.edu.au).

Thank you for your attention and assistance.

Yours sincerely,

Prof. Paul Ward

Head, Discipline of Public Health

Faculty of Health Science, Flinders University

This research project has been approved by the Flinders University
Social and Behavioural Research Ethics Committee (Project No…..).
For more information regarding ethical approval of the project the Executive
Office of the Committee can be contacted by telephone +61 8201 3116, by fax
on +61 8201 2035 or by e-mail human.researchethics@flinders.edu.au

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CRICOS Provider No. 00114A

Letter to College Principal (Cross-sectional Study)

Dear Sir/Madam

This letter is to introduce Dr. Nualnong Wongtongkam who is a Ph.D. student in the Discipline of Public Health at Flinders University, Australia. She is undertaking research leading to the production of a thesis or other publications on the subject of " Exploring risk factors on youth violence and evaluating the effectiveness of intervention programs to reduce violence in technical college students, Thailand"

This study aims to estimate the prevalence of violence, explore risk factors and evaluate violent sequelae in technical students with a view to implement a school based intervention for reducing violent behaviours. I would be grateful if you are taking part in this research by permission to your students be completed questionnaires in a youth topic. Be insured that the research study is met the requirements of the Research Ethical Committees at Flinders University.

The questionnaires should be taken approximately one hour. Be assured that any information provide will be treated in the strictest confidence and none of the participants will be individual identifiable in the resulting of thesis, report, or other publications.

Permission will be sought from the students and their parents to their participation in the research. Only one who consent and whose parents consent will participate. Participants may withdraw by walking out from the classroom during the test at any time without answers any questions without penalty. The role of the college in voluntary and the College Principal may decide to withdraw the college's participation at any time without penalty.

Once, I received your permission to approach students to participate in the study, and the test schedules will be submitted to you. I will arrange for informed consent to be obtained from participants' parents and participants.

Thank you for your cooperation and assistance

Your Sincerely,

Prof. Paul Ward

Head, Discipline of Public Health

Faculty of Health Science, Flinders University

Participant Information Sheet (Intervention Program)

Introduction

      Anger is an emotion that can enhance violence and other behavioural problems. The expression of anger can also negatively impact on physical and psychological problems, so learning how to handle and regulate emotions and how to convey anger expression is a significant task for reducing anger expression, and may lead to reduce violent behaviours with depressive symptoms related to anger expression.

      The study is designed to compare the effectiveness between two intervention techniques which are Meditation Mindfulness and Aggression Replacement Therapy, in reducing aggression and depressive disorders among Thai technical college youths.

Description of study procedure

      To access sample population, three colleges will be randomized both in Bangkok and in Nakhon Ratchasima provinces, then one selected classroom will be recruited from two departments through one college. Participant in the whole one classroom (40-50 students) will be administered for one intervention within one college. Students will be contacted and invited to participate in the intervention programs with providing information package (information sheet, letter of introduction and consent form). The consent form will be sent to the researcher by mail or handled directly to the researcher, then the meeting will be set up to explain details of intervention program in the college and provide a schedule for attending intervention workshop.

      The programs interventions are operated for three full days training (Friday-Sunday) within 6 weeks. Participants who are willing to attend the intervention are required to stay two nights at an intervention place. Pre-test and Post-test questionnaires with the indepth-interview are required.

      Mindfulness Meditation (MM) intervention will be conducted by two monks and will be trained in sitting and walking meditation. Additionally, Loving-Kindness Meditation will be applied for compassionate feelings to other people being added up to MM. Regarding Aggression Replacement Therapy (ART), it is a didactic program which contains social competence training, aggression control, and moral education. The ART will be operated by a psychologist and a behavioural facilitator.

Risk and benefits of participation

There are some risks involved in participation of this study such as anxiety or stress, so youths have the right to withdraw the session by dropping out of the workshop at any time. Additionally, there are school counsellors and a psychologist to help participants being minimized problems, and a free hotline service for children and youths called metal health services 1667 from Ministry of Public Health.

Voluntary participation and confidentially

The participants in this study are completely voluntary. The study is concerned to disclose participants' names and addresses, and participants are free to withdraw without attending intervention workshop at any time without penalty. All participants' information will be strictly confidential.

Costs and Payments

Participants will be given a reimbursement for their effort and time with 100 Thai Bath ($ AUD 3.50) a day while attending a workshop.

Contact Persons

For more information concerning this study, please contact :

Dr. Nualnong Wongtongkam, Ph.D. student, Faculty of Health Science, Discipline of Public Health, Flinders University, South Australia 5001.

If participants have any questions about their rights as a research subject, they could contact Prof. Paul Ward, Head-Discipline of Public Health [Chair- Flinders Social and Behavioral Research Ethics Committee], Health Science Building, Registry Road Flinders University, GPO Box 2100, Adelaide 5001, Australia.

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CRICOS Provider No. 00114A

LETTER OF INTRODUCTION (Intervention Program)

Dear Sir

This letter is to introduce Dr. Nualnong Wongtongkam who is a Ph.D. student in the Discipline of Public Health at Flinders University.

She is undertaking research leading to the production of a thesis or other publications on the subject of "Exploring risk factors on youth violence and evaluating the effectiveness of intervention programs to reduce violence in technical college students, Thailand."

She would be most grateful if you would volunteer to assist in this project, by attending in intervention programs which either is Aggressive Replacement Therapy or Mindfulness Meditation. The workshop will be required three full days training (Friday – Sunday) for 6 weeks and stayed two day overnights in intervention taken place. Additionally, you are required to complete questionnaires in pre-test and post-test intervention with the in-depth interview. You are, of course, entirely free to withdraw your participation without attending workshop, without filling up questionnaires and without answering in any questions during interview at any time without penalty.

She will seek your and parental consent, on the attached form, to use the data from questionnaires and the in-depth interview in preparing the thesis, report or other publications, on condition that your name or identity is not revealed.

Any enquiries you may have concerning this project should be directed to me at the address given above or by telephone on +61 8722 18415, by fax on +61 8722 18424 or by email (Paul.Ward@flinders.edu.au).

Thank you for your attention and assistance.

Yours sincerely,

Prof. Paul Ward

Head, Discipline of Public Health

Faculty of Health Science, Flinders University

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CRICOS Provider No. 00114A

LETTER OF INTRODUCTION (Intervention Program)

Dear Parent/Guardian

This letter is to introduce Dr. Nualnong Wongtongkam who is a Ph.D. student in the Discipline of Public Health at Flinders University.

She is undertaking research leading to the production of a thesis or other publications on the subject of " Exploring risk factors on youth violence and evaluating the effectiveness of intervention programs to reduce violence in technical college students, Thailand."

She would be most grateful if you would volunteer to assist in this project, by granting your children to attend the intervention workshop which may be Aggressive Replacement Therapy or Mindfulness Meditation. The workshop will be required three full days training (Friday – Sunday) for 6 weeks and stayed two day overnights in intervention taken place. Additionally, your child are required to complete questionnaires in pre-test and post-test questionnaires with the in-depth interview. Your child are, of course, entirely free to withdraw the participation without attending workshop, without filling up questionnaires, and without answering in any questions during interview at any time without penalty.

She will seek your consent, on the attached form, to use the data from your children in pre-test and post-test questionnaires with the indepth-interview in preparing the thesis, report or other publications, on condition that your child's name or identity is not revealed.

Any enquiries you may have concerning this project should be directed to me at the address given above or by telephone on +61 8722 18415, by fax on +61 8722 18424 or by email (Paul.Ward@flinders.edu.au).

Thank you for your attention and assistance.

Yours sincerely,

Prof. Paul Ward

Head, Discipline of Public Health

Faculty of Health Science, Flinders University

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CRICOS Provider No. 00114A

Letter to College Principal (Intervention Program)

Dear Sir/Madam

This letter is to introduce Dr. Nualnong Wongtongkam who is a Ph.D. student in the Discipline of Public Health at Flinders University, Australia. She is undertaking research leading to the production of a thesis or other publications on the subject of " Exploring risk factors on youth violence and evaluating the effectiveness of intervention programs to reduce violence in technical college students, Thailand"

This study aims to compare the effectiveness of Aggressive Replacement Therapy and Mindfulness Meditation in order to reduce violence behaviours and depressive disorders. I would be grateful if you are taking part in this research by permission to your students be attended the intervention workshop with three full days training (Friday-Sunday) during 6 weeks. Two teacher assistants from your colleges will be attended the intervention program in order to sustain long-term program in the college. Additionally, the pre-test and post-test questionnaires with the in-depth interview will be conducted with taken approximately one hour in students and teacher assistants. Be insured that the research study is met the requirements of the Research Ethical Committees at Flinders University, and any information provide will be treated in the strictest confidence and none of the participants will be individual identifiable in the resulting of thesis, report, or other publications.

Permission will be sought from the students and their parents to their participation in the research. Only one who consent and whose parents consent will participate. Participants may withdraw without attending workshop session, without filling up questionnaires and without answer in any questions during the interview at any time without penalty. The role of the college in voluntary and the College Principal may decide to withdraw the college's participation at any time without penalty.

Once, I received your permission to approach students to participate in the study, and the workshop schedules will be submitted to you. I will arrange for informed consent to be obtained from participants' parents and participants.

Thank you for your cooperation and assistance

Your Sincerely,

Prof. Paul Ward

Head, Discipline of Public Health

Faculty of Health Science, Flinders University

CONSENT FORM FOR PARTICIPATION IN RESEARCH

(by experiment: Intervention Program with in-depth interview)

I …..

being the age of 16-18 year olds hereby consent to participate as requested in the study for the research project of exploring risk factors on youth violence and evaluating effectiveness of intervention programs to reduce violence in technical colleges, Thailand.

1. I have read the information provided.

2. Details of procedures and any risks have been explained to my satisfaction.

3. I agree to audio recording for my information and participation during the in-depth interview

4. I understand that:
   - I may not directly benefit from taking part in this research.
   - I am free to withdraw from the project at any time and am free to decline to answer particular questions in questionnaires both in pre-test and post-test intervention.
   - While the information gained in this study will be published as explained, I will not be identified, and individual information will remain confidential.
   - Whether I participate or not, or withdraw after participating, will have no effect on my progress in my course of study, or results gained.
   - I may not attend the intervention program at any time, and I may walk out from the classroom during completed questionnaires (pre-test and post-test) and in-depth interview. Hence, I may withdraw at any time from the session or the research without disadvantage.

5. I have had the opportunity to discuss taking part in this research with a family member or friend.

Participant's signature……………………………….………Date……………..………...

Parent/Guardian signature ………………………….……Date……………..………...

I certify that I have explained the study to the volunteer and consider that he understands what is involved and freely consents to participation.

Researcher's name……………………………………………......................................

Researcher's signature……………………………………..…..Date……………..….…….

CONSENT FORM FOR PARTICIPATION IN RESEARCH

(by experiment: Intervention Program with in-depth interview)

I …..

Being 19 years or older hereby consent to participate as requested in the study for the research project on validity of exploring risk factors on youth violence and evaluating effectiveness of intervention programs to reduce violence in technical colleges, Thailand.

1.   I have read the information provided.

2.   Details of procedures and any risks have been explained to my satisfaction.

3.   I agree to audio recording for my information and participation during the in-depth interview.

4.   I understand that:

- I may not directly benefit from taking part in this research.

- I am free to withdraw from the project at any time and am free to decline to answer particular questions in questionnaires both in pre-test and post-test intervention.

- While the information gained in this study will be published as explained, I will not be identified, and individual information will remain confidential.

- Whether I participate or not, or withdraw after participating, will have no effect on my progress in my course of study, or results gained.

- I may not attend the intervention program at any time, and I may walk out from the classroom during pre-test and post-test questionnaires and in-depth interview. Hence, I may withdraw at any time from the session or the research without disadvantage.

5.   I have had the opportunity to discuss taking part in this research with a family member

or friend.

Participant's signature……………………………….………Date……………..………...

I certify that I have explained the study to the volunteer and consider that he understands what is involved and freely consents to participation.

Researcher's name…………………………………………….....................................

Researcher's signature……………..………………….…..Date…………….……..…….

Self-Report Questionnaires

Violence Classification

In the past six month….						
	0	1-2	3-5	6-9	10-19	20 or more
1.Have you ever involved in a gang fight ?						
2. Have you used a weapon, force, or strong-arm methods to get money or things from people ?						
3. Have you attacked someone with a weapon?						

The header "Number of times" spans columns 0 through 20 or more.

In the past six month….						
	0	1-2	3-5	6-9	10-19	20 or more
1. Thrown something at someone to hurt them ?						
2. Been in a fight with someone was hit ?						
3. Shoved or pushed another kid ?						
4. Threatened someone with weapon (gun, knife, club, etc.) ?						
5. Hit or slapped another kid?						
6. Threatened to hit or physically harm another kid ?						
7. Put someone down to their face ?						

Victimization

Relational Victimization						
In the past six month….	0	1-2	3-5	6-9	10-19	20 or more
1.Had a friend say they won't like you unless you do what he/she wanted to do ?						
2. Had someone spread a false rumor about you ?						
3. Been left out on purpose by other friends when it was time to do an activity ?						
4. Had a friend try to keep others from liking you by saying mean things about you ?						
5. Had a friend tell lies about you to make other friends not like you anymore ?						

The "Number of times" header spans columns 0 through 20 or more in each table.

Overt Victimization	Number of times					
In the past six month….	0	1-2	3-5	6-9	10-19	20 or more
1. Been hit by another friend ?						
2. Been pushed or shoved by another friend ?						
3. Been yelled at or called mean names by another friend ?						
4. Another student threatened to hit or physically ham to you ?						
5. Been threatened or injured by someone with a weapon (gun, knife, club, etc.)?						
6. Had a student asked you to fight ?						

Witness

	Number of times					
In the past six month….	0	1-2	3-5	6-9	10-19	20 or more
1. Had seen someone been hit by another kids ?						
2. Had seen someone been pushed or shoved by another kids ?						
3. Had seen someone been yelled at or called mean names by another kids ?						
4. Had seen someone been chased by gangs or individual ?						
5. Had seen someone been threatened or injured by kids with a weapon (gun, knife, club, etc.)?						

Offender

	Number of times					
In the past six month….	0	1-2	3-5	6-9	10-19	20 or more
1. Had you hit another kid ?						
2. Had you pushed or shoved another kid ?						
3. Had you yelled at or called mean names another kid ?						
4. Had you threatened or chased someone with a weapon (gun, knife, club, etc.)?						
5. Had you injured someone with a weapon (gun, knife, club, etc.)?						
6. Had you asked kids to fight ?						

Communities That Care® Youth Survey

This survey is voluntary. That means you do not have to take it. If you choose to take it, you may skip any question you don't want to answer.

Thank you for agreeing to participate in this survey. The survey asks your opinion about a number of things in your life, including your friends, your family, your neighborhood and your community. Your answers to these questions will be <u>confidential</u>. That means no one will know your answers. To help us keep your answers secret, please <u>do not</u> write your name on this survey form.

Instructions

1. This is not a test. There are no right or wrong answers.

2. If you don't find an answer that fits exactly, use one that comes closest. If any question does not apply to you, or you are not sure what it means, just leave it blank.

3. Mark your answers clearly:

   • It is best to use a pencil, but you also may use a blue or black pen.

   • Completely fill in the circles.

   • Completely erase any answer you want to change.

   • Make no other markings or comments on the answer pages.

4. Some of the questions have the following format:

   Please fill in the circle for the word that best describes how you feel.

   EXAMPLE: Pepperoni pizza is one of my favorite foods.

   NO!   no   yes   YES!
   ○   ○   ●   ○

   Mark the Big "NO!" if you think the statement is <u>definitely not</u> true for you.
   Mark the little "no" if you think the statement is <u>mostly not true</u> for you.
   Mark the little "yes" if you think the statement is <u>mostly true</u> for you.
   Mark the Big "YES!" if you think the statement is <u>definitely true</u> for you.

This kind of mark will work:
Correct Mark
○ ○ ● ○ ○

These kinds of marks will NOT work:
Incorrect Marks

Admin code

These questions ask for some general information about you. Please mark the response that best describes you.

How old are you?
○ 10
○ 11
○ 12
○ 13
○ 14
○ 15
○ 16
○ 17
○ 18
○ 19 or older

What grade are you in?
○ 6th
○ 7th
○ 8th
○ 9th
○ 10th
○ 11th
○ 12th

Are you:
○ Female
○ Male

What do you consider yourself to be? (choose all that apply)
○ White
○ Black or African American
○ American Indian/Native American, Eskimo or Aleut
○ Spanish/Hispanic/Latino
○ Asian or Pacific Islander
○ Other (Please specify: _____)

What is the language you use most often at home?
○ English
○ Spanish
○ Another language (Please specify:_____)

This section asks about your experiences at school.

Putting them all together, what were your grades like last year?
○ Mostly F's
○ Mostly D's
○ Mostly C's
○ Mostly B's
○ Mostly A's

During the LAST FOUR WEEKS, how many whole days have you missed because you skipped or "cut"?
○ None
○ 1
○ 2
○ 3
○ 4-5
○ 6-10
○ 11 or more

How often do you feel that the schoolwork you are assigned is meaningful and important?
○ Almost always
○ Often
○ Sometimes
○ Seldom
○ Never

How interesting are most of your courses to you?
○ Very interesting and stimulating
○ Quite interesting
○ Fairly interesting
○ Slightly dull
○ Very dull

How important do you think the things you are learning in school are going to be for your later life?
○ Very important
○ Quite important
○ Fairly important
○ Slightly important
○ Not at all important

Now, thinking back over the past year in school, how often did you:

	Never	Seldom	Sometimes	Often	Almost always
Enjoy being in school?	○	○	○	○	○
Hate being in school?	○	○	○	○	○
Try to do your best work in school?	○	○	○	○	○

	NO!	no	yes	YES!
In my school, students have lots of chances to help decide things like class activities and rules.	○	○	○	○
Teachers ask me to work on special classroom projects.	○	○	○	○
My teacher(s) notices when I am doing a good job and lets me know about it.	○	○	○	○
There are lots of chances for students in my school to get involved in sports, clubs, and other school activities outside of class.	○	○	○	○
There are lots of chances for students in my school to talk with a teacher one-on-one.	○	○	○	○
I feel safe at my school.	○	○	○	○
The school lets my parents know when I have done something well.	○	○	○	○
My teachers praise me when I work hard in school.	○	○	○	○
Are your school grades better than the grades of most students in your class?	○	○	○	○
I have lots of chances to be part of class discussions or activities.	○	○	○	○

These questions ask about your feelings and experiences in other parts of your life.

Think of your four best friends (the friends you feel closest to). In the past year (12 months), how many of your best friends have:

	None	1	2	3	4
Smoked cigarettes?	○	○	○	○	○
Tried beer, wine or hard liquor (for example, vodka, whiskey or gin) when their parents didn't know about it?	○	○	○	○	○
Used marijuana?	○	○	○	○	○
Used LSD, cocaine, amphetamines, or other illegal drugs?	○	○	○	○	○
Been suspended from school?	○	○	○	○	○
Carried a handgun?	○	○	○	○	○
Sold illegal drugs?	○	○	○	○	○
Stolen or tried to steal a motor vehicle such as a car or motorcycle?	○	○	○	○	○
Been arrested?	○	○	○	○	○
Dropped out of school?	○	○	○	○	○
Been members of a gang?	○	○	○	○	○

What are the chances you would be seen as cool if you:

	No or very little chance	Little chance	Some chance	Pretty good chance	Very good chance
Smoked cigarettes?	○	○	○	○	○
Began drinking alcoholic beverages regularly, that is, at least once or twice a month?	○	○	○	○	○
Smoked marijuana?	○	○	○	○	○
Carried a handgun?	○	○	○	○	○

The next section asks about your experience with tobacco, alcohol, and other drugs. It also asks some other personal questions. Remember, your answers are confidential. This means your answers will stay secret.

Have you <u>ever</u> used smokeless tobacco (chew, snuff, plug, dipping tobacco, chewing tobacco)?
- ◯ Never
- ◯ Once or twice
- ◯ Once in a while but not regularly
- ◯ Regularly in the past
- ◯ Regularly now

How frequently have you used smokeless tobacco during the <u>past 30 days</u>?
- ◯ Never
- ◯ Once or twice
- ◯ Once or twice per week
- ◯ About once a day
- ◯ More than once a day

Have you ever smoked cigarettes?
- ◯ Never
- ◯ Once or twice
- ◯ Once in a while but not regularly
- ◯ Regularly in the past
- ◯ Regularly now

How frequently have you smoked cigarettes during the <u>past 30 days</u>?
- ◯ Not at all
- ◯ Less than one cigarette per day
- ◯ One to five cigarettes per day
- ◯ About one-half pack per day
- ◯ About one pack per day
- ◯ About one and one-half packs per day
- ◯ Two packs or more per day
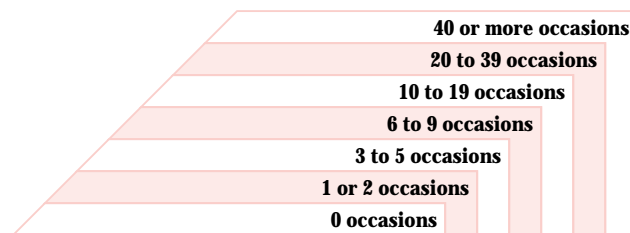
On how many occasions (if any) have you:

	0 occasions	1 or 2 occasions	3 to 5 occasions	6 to 9 occasions	10 to 19 occasions	20 to 39 occasions	40 or more occasions
Had alcoholic beverages (beer, wine or hard liquor) to drink–more than just a few sips–in your <u>lifetime</u>?	◯	◯	◯	◯	◯	◯	◯
Had alcoholic beverages (beer, wine or hard liquor) to drink–more than just a few sips–during the <u>past 30 days</u>?	◯	◯	◯	◯	◯	◯	◯
Sniffed glue, breathed the contents of an aerosol spray can, or inhaled other gases or sprays in order to get high in your <u>lifetime</u>?	◯	◯	◯	◯	◯	◯	◯
Sniffed glue, breathed the contents of an aerosol spray can, or inhaled other gases or sprays in order to get high during the <u>past 30 days</u>?	◯	◯	◯	◯	◯	◯	◯
Used cocaine in your <u>lifetime</u>?	◯	◯	◯	◯	◯	◯	◯
Used cocaine during the <u>past 30 days</u>?	◯	◯	◯	◯	◯	◯	◯
Used marijuana (weed, pot) or hashish (hash, hash oil) in your <u>lifetime</u>?	◯	◯	◯	◯	◯	◯	◯
Used marijuana (weed, pot) or hashish (hash, hash oil) during the <u>past 30 days</u>?	◯	◯	◯	◯	◯	◯	◯
Used derbisol in your <u>lifetime</u>?	◯	◯	◯	◯	◯	◯	◯
Used derbisol during the <u>past 30 days</u>?	◯	◯	◯	◯	◯	◯	◯
Used heroin in your <u>lifetime</u>?	◯	◯	◯	◯	◯	◯	◯
Used heroin during the <u>past 30 days</u>?	◯	◯	◯	◯	◯	◯	◯

Left column scale (columns left to right): 0 occasions | 1 or 2 occasions | 3 to 5 occasions | 6 to 9 occasions | 10 to 19 occasions | 20 to 39 occasions | 40 or more occasions

On how many occasions (if any) have you:

Used LSD (acid) or other psychedelics (peyote, PCP) in your <u>lifetime</u>?

Used LSD (acid) or other psychedelics (peyote, PCP) during the <u>past 30 days</u>?

Used Ecstasy in your <u>lifetime</u>?

Used Ecstasy during the <u>past 30 days</u>?

Used methamphetamine (meth, crystal meth, crank) in your <u>lifetime</u>?

Used methamphetamine (meth, crystal meth, crank) during the <u>past 30 days</u>?

Used prescription pain relievers, such as Vicodin®, OxyContin® or Tylox®, without a doctor's orders, in your <u>lifetime</u>?

Used prescription pain relievers, such as Vicodin®, OxyContin® or Tylox®, without a doctor's orders, during the <u>past 30 days</u>?

Used prescription tranquilizers, such as Xanax®, Valium® or Ambien®, without a doctor's orders, in your <u>lifetime</u>?

Used prescription tranquilizers, such as Xanax®, Valium® or Ambien®, without a doctor's orders, during the <u>past 30 days</u>?

Used prescription stimulants, such as Ritalin® or Adderall®, without a doctor's orders, in your <u>lifetime</u>?

Used prescription stimulants, such as Ritalin® or Adderall®, without a doctor's orders, during the <u>past 30 days</u>?

Right column scale (columns left to right): Never | 1 or 2 times | 3 to 5 times | 6 to 9 times | 10 to 19 times | 20 to 29 times | 30 to 39 times | 40+ times

How many times in the past year (12 months) have you:

Been suspended from school?

Carried a handgun?

Sold illegal drugs?

Stolen or tried to steal a motor vehicle such as a car or motorcycle?

Been arrested?

Attacked someone with the idea of seriously hurting them?

Been drunk or high at school?

Taken a handgun to school?

Have you ever belonged to a gang?

○ No
○ Yes

If you have ever belonged to a gang, did that gang have a name?

○ No
○ Yes
○ I have never belonged to a gang.

Think back over the last two weeks. How many times have you had five or more alcoholic drinks in a row?

○ None
○ Once
○ Twice
○ 3-5 times
○ 6-9 times
○ 10 or more times

How old were you when you first:

	Never have	10 or younger	11	12	13	14	15	16	17 or older
Smoked marijuana?	○	○	○	○	○	○	○	○	○
Smoked a cigarette, even just a puff?	○	○	○	○	○	○	○	○	○
Had more than a sip or two of beer, wine or hard liquor (for example, vodka, whiskey, or gin)?	○	○	○	○	○	○	○	○	○
Began drinking alcoholic beverages regularly, that is, at least once or twice a month?	○	○	○	○	○	○	○	○	○
Got suspended from school?	○	○	○	○	○	○	○	○	○
Got arrested?	○	○	○	○	○	○	○	○	○
Carried a handgun?	○	○	○	○	○	○	○	○	○
Attacked someone with the idea of seriously hurting them?	○	○	○	○	○	○	○	○	○
Belonged to a gang?	○	○	○	○	○	○	○	○	○

How often do you attend religious services or activities?

○ Never
○ Rarely
○ 1-2 times a month
○ About once a week or more

I like to see how much I can get away with.

○ Very false
○ Somewhat false
○ Somewhat true
○ Very true
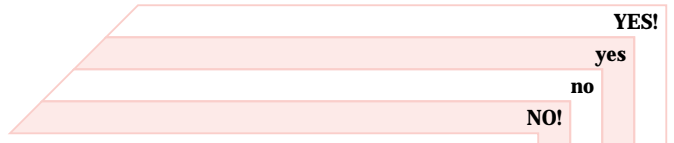
	NO!	no	yes	YES!
Sometimes I think that life is not worth it.	○	○	○	○
At times I think I am no good at all.	○	○	○	○
All in all, I am inclined to think that I am a failure.	○	○	○	○
In the past year have you felt depressed or sad MOST days, even if you feel OK sometimes?	○	○	○	○
It is all right to beat up people if they start the fight.	○	○	○	○
I think it is okay to take something without asking if you can get away with it.	○	○	○	○
It is important to be honest with your parents, even if they become upset or you get punished.	○	○	○	○
I think sometimes it's okay to cheat at school.	○	○	○	○

I ignore rules that get in my way.

- ◯ Very false
- ◯ Somewhat false
- ◯ Somewhat true
- ◯ Very true

I do the opposite of what people tell me, just to get them mad.

- ◯ Very false
- ◯ Somewhat false
- ◯ Somewhat true
- ◯ Very true

How many times have you done the following things?

	Once a week or more	2 or 3 times a month	About once a month	Less than once a month	I've done it, but not in the past year	Never
Done what feels good no matter what.	◯	◯	◯	◯	◯	◯
Done something dangerous because someone dared you to do it.	◯	◯	◯	◯	◯	◯
Done crazy things even if they are a little dangerous.	◯	◯	◯	◯	◯	◯
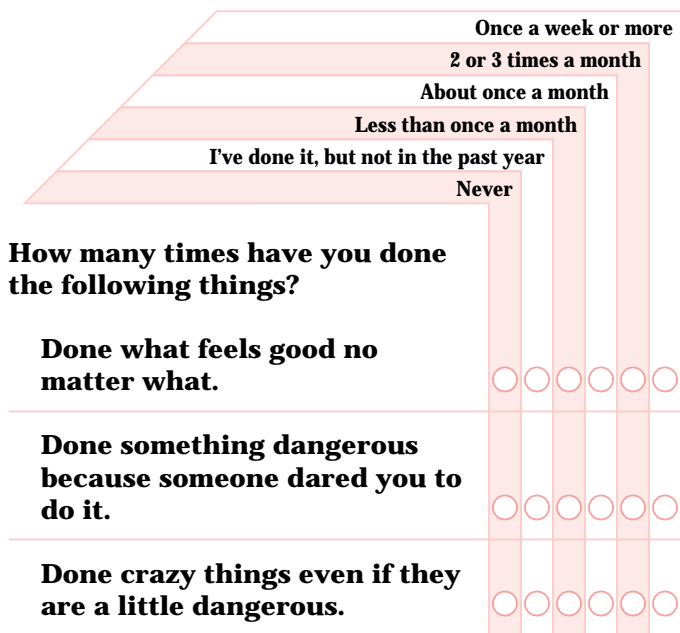
Sometimes we don't know what we will do as adults, but we may have an idea. Please tell me how true these statements may be for you.

	YES!	yes	no	NO!
When I am an adult:				
I will smoke cigarettes.	◯	◯	◯	◯
I will drink beer, wine, or liquor.	◯	◯	◯	◯
I will smoke marijuana.	◯	◯	◯	◯
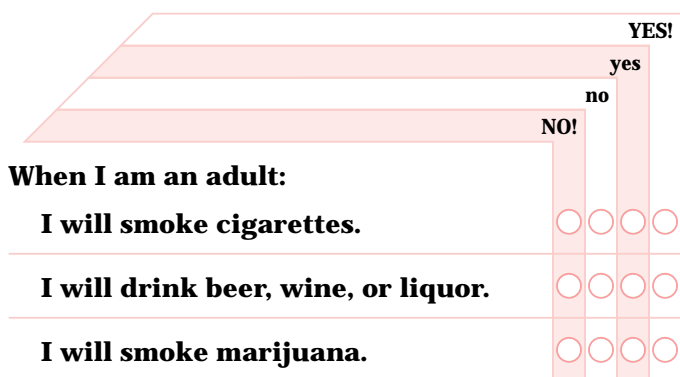
These questions ask about how you would act in certain situations. They also ask your opinion about certain things.

You're looking at CDs in a music store with a friend. You look up and see her slip a CD under her coat. She smiles and says, "Which one do you want? Go ahead, take it while nobody's around." There is nobody in sight, no employees and no other customers. What would you do now?

- ◯ Ignore her.
- ◯ Grab a CD and leave the store.
- ◯ Tell her to put the CD back.
- ◯ Act like it's a joke, and ask her to put the CD back.

It's 8:00 on a weeknight and you are about to go over to a friend's home when your mother asks you where you are going. You say, "Oh, just going to go hang out with some friends." She says, "No, you'll just get into trouble if you go out. Stay home tonight." What would you do now?

- ◯ Leave the house anyway.
- ◯ Explain what you are going to do with your friends, tell her when you'd get home, and ask if you can go out.
- ◯ Not say anything and start watching TV.
- ◯ Get into an argument with her.

You are visiting another part of town, and you don't know any of the people your age there. You are walking down the street, and some teenager you don't know is walking toward you. He is about your size, and as he is about to pass you, he deliberately bumps into you and you almost lose your balance. What would you say or do?

- ◯ Push the person back.
- ◯ Say "Excuse me" and keep on walking.
- ◯ Say "Watch where you're going" and keep on walking.
- ◯ Swear at the person and walk away.

You are at a party at someone's house, and one of your friends offers you a drink containing alcohol. What would you say or do?

- ◯ Drink it.
- ◯ Tell your friend "No thanks, I don't drink" and suggest that you and your friend go and do something else.
- ◯ Just say "No, thanks" and walk away.
- ◯ Make up a good excuse, tell your friend you had something else to do, and leave.

These questions ask about the neighborhood and community where you live.

	Not wrong at all	A little bit wrong	Wrong	Very wrong
How wrong do you think it is for someone your age to:				
Take a handgun to school?	○	○	○	○
Steal anything worth more than $5?	○	○	○	○
Pick a fight with someone?	○	○	○	○
Attack someone with the idea of seriously hurting them?	○	○	○	○
Stay away from school all day when their parents think they are at school?	○	○	○	○
Drink beer, wine or hard liquor (for example, vodka, whiskey or gin) regularly?	○	○	○	○
Smoke cigarettes?	○	○	○	○
Smoke marijuana?	○	○	○	○
Use LSD, cocaine, amphetamines or another illegal drug?	○	○	○	○

	Very easy	Sort of easy	Sort of hard	Very hard
If you wanted to get some beer, wine or hard liquor (for example, vodka, whiskey, or gin), how easy would it be for you to get some?	○	○	○	○
If you wanted to get some cigarettes, how easy would it be for you to get some?	○	○	○	○
If you wanted to get a drug like cocaine, LSD, or amphetamines, how easy would it be for you to get some?	○	○	○	○
If you wanted to get some marijuana, how easy would it be for you to get some?	○	○	○	○
If you wanted to get a handgun, how easy would it be for you to get one?	○	○	○	○

	Great risk	Moderate risk	Slight risk	No risk
How much do you think people risk harming themselves (physically or in other ways) if they:				
Smoke one or more packs of cigarettes per day?	○	○	○	○
Try marijuana once or twice?	○	○	○	○
Smoke marijuana regularly?	○	○	○	○
Take one or two drinks of an alcoholic beverage (beer, wine, liquor) nearly every day?	○	○	○	○

	YES!	yes	no	NO!
If a kid smoked marijuana in your neighborhood, would he or she be caught by the police?	○	○	○	○
If a kid drank some beer, wine or hard liquor (for example, vodka, whiskey, or gin) in your neighborhood, would he or she be caught by the police?	○	○	○	○
If a kid carried a handgun in your neighborhood, would he or she be caught by the police?	○	○	○	○

	Not wrong at all	A little bit wrong	Wrong	Very wrong

How wrong would most adults (over 21) in your neighborhood think it was for kids your age:

To use marijuana?	○	○	○	○
To drink alcohol?	○	○	○	○
To smoke cigarettes?	○	○	○	○

	5 or more adults	3 or 4 adults	2 adults	1 adult	None

About how many adults (over 21) have you known personally who in the past year have:

Used marijuana, crack, cocaine, or other drugs?	○	○	○	○	○
Sold or dealt drugs?	○	○	○	○	○
Done other things that could get them in trouble with the police, like stealing, selling stolen goods, mugging or assaulting others, etc.?	○	○	○	○	○
Gotten drunk or high?	○	○	○	○	○

	YES!	yes	no	NO!
If I had to move, I would miss the neighborhood I now live in.	○	○	○	○
My neighbors notice when I am doing a good job and let me know.	○	○	○	○
I like my neighborhood.	○	○	○	○
There are lots of adults in my neighborhood I could talk to about something important.	○	○	○	○
There are people in my neighborhood who are proud of me when I do something well.	○	○	○	○
I feel safe in my neighborhood.	○	○	○	○
I'd like to get out of my neighborhood.	○	○	○	○
There are people in my neighborhood who encourage me to do my best.	○	○	○	○

	Yes	No

Which of the following activities for people your age are available in your community?

Sports teams	○	○
Scouting	○	○
Boys and girls clubs	○	○
4-H clubs	○	○
Service clubs	○	○

	YES!	yes	no	NO!

How much do each of the following statements describe your neighborhood:

Crime and/or drug selling	○	○	○	○
Fights	○	○	○	○
Lots of empty or abandoned buildings	○	○	○	○
Lots of graffiti	○	○	○	○

The next few questions ask about your family.

How wrong do your parents feel it would be for you to:

	Not wrong at all	A little bit wrong	Wrong	Very wrong
Drink beer, wine or hard liquor (for example, vodka, whiskey or gin) regularly?	○	○	○	○
Smoke cigarettes?	○	○	○	○
Smoke marijuana?	○	○	○	○
Steal anything worth more than $5?	○	○	○	○
Draw graffiti, or write things or draw pictures on buildings or other property (without the owner's permission)?	○	○	○	○
Pick a fight with someone?	○	○	○	○

Have you changed homes in the past year?

○ No
○ Yes

How many times have you changed homes since kindergarten?

○ Never
○ 1 or 2 times
○ 3 or 4 times
○ 5 or 6 times
○ 7 or more times

Have you changed schools (including changing from elementary to middle and middle to high school) in the past year?

○ No
○ Yes

How many times have you changed schools (including changing from elementary to middle and middle to high school) since kindergarten?

○ Never
○ 1 or 2 times
○ 3 or 4 times
○ 5 or 6 times
○ 7 or more times

Has anyone in your family ever had a severe alcohol or drug problem?

○ No
○ Yes

Have any of your brothers or sisters ever:

	I don't have any brothers or sisters	Yes	No
Drunk beer, wine or hard liquor (for example, vodka, whiskey or gin)?	○	○	○
Smoked marijuana?	○	○	○
Smoked cigarettes?	○	○	○
Taken a handgun to school?	○	○	○
Been suspended or expelled from school?	○	○	○

	YES!	yes	no	NO!
The rules in my family are clear.	○	○	○	○
People in my family often insult or yell at each other.	○	○	○	○
When I am not at home, one of my parents knows where I am and who I am with.	○	○	○	○
We argue about the same things in my family over and over.	○	○	○	○
If you drank some beer or wine or liquor (for example, vodka, whiskey, or gin) without your parents' permission, would you be caught by your parents?	○	○	○	○
My family has clear rules about alcohol and drug use.	○	○	○	○
If you carried a handgun without your parents' permission, would you be caught by your parents?	○	○	○	○
If you skipped school, would you be caught by your parents?	○	○	○	○

All the time
Often
Sometimes
Never or almost never

My parents notice when I am doing a good job and let me know about it. ○ ○ ○ ○

How often do your parents tell you they're proud of you for something you've done? ○ ○ ○ ○

YES!
yes
no
NO!

Do you feel very close to your mother? ○ ○ ○ ○

Do you share your thoughts and feelings with your mother? ○ ○ ○ ○

My parents ask me what I think before most family decisions affecting me are made. ○ ○ ○ ○

Do you share your thoughts and feelings with your father? ○ ○ ○ ○

Do you enjoy spending time with your mother? ○ ○ ○ ○

Do you enjoy spending time with your father? ○ ○ ○ ○

YES!
yes
no
NO!

If I had a personal problem, I could ask my mom or dad for help. ○ ○ ○ ○

Do you feel very close to your father? ○ ○ ○ ○

My parents give me lots of chances to do fun things with them. ○ ○ ○ ○

My parents ask if I've gotten my homework done. ○ ○ ○ ○

People in my family have serious arguments. ○ ○ ○ ○

Would your parents know if you did not come home on time? ○ ○ ○ ○

These questions ask for more information about your friends.

4 of my friends
3 of my friends
2 of my friends
1 of my friends
None of my friends

Think about your <u>four best friends</u> (the friends you feel closest to). In the past year (12 months), how many of your best friends have:

Participated in clubs, organizations or activities at school? ○ ○ ○ ○ ○

Made a commitment to stay drug-free? ○ ○ ○ ○ ○

Liked school? ○ ○ ○ ○ ○

Regularly attended religious services? ○ ○ ○ ○ ○

Tried to do well in school? ○ ○ ○ ○ ○

You may be asked to answer some additional questions. If so, those questions will be handed to you on a sheet of paper or written where everyone taking the survey can see them. In the spaces that follow, record your answer to each additional question.

1. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ
2. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ
3. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ
4. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ
5. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ
6. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ
7. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ
8. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ
9. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ
10. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ Ⓖ Ⓗ

SERI AL #

Spielberger Anger Expression Scales (1998)

Everyone feels angry or furious from time to time, but people differ in the ways that they react when they are angry. A number of statements are listed below which people have used to describe their reactions when they feel <u>angry</u> or <u>furious.</u> Please read each statement and then circle the number to the right of the statement that indicates how <u>often</u> you <u>generally</u> react or behave in the manner described. There are no right or wrong answers. Do not spend too much time on any one statement.

<u>WHEN ANGRY OR FURIOUS…..</u>

		Almost Never	Some times	Often	Almost Always
CO	I control my temper	1	2	3	4
AO	I express my anger	1	2	3	4
CI	I take a deep breath and relax	1	2	3	4
AI	I keep things in	1	2	3	4
CO	I am patient with others	1	2	3	4
AO	If someone annoys me, I'm apt to tell him or her how I feel	1	2	3	4
CI	I try to calm myself as soon as possible	1	2	3	4
AI	I pout or sulk	1	2	3	4
CO	I control my urge to express my angry feelings	1	2	3	4
AO	I lose my temper	1	2	3	4
CI	I try to simmer down	1	2	3	4
AI	I withdraw from people	1	2	3	4
CO	I keep my cool	1	2	3	4
AO	I make sarcastic remarks to others	1	2	3	4
CI	I try to soothe my angry feelings	1	2	3	4
AI	I boil inside, but I don't show it	1	2	3	4
CO	I control my behaviour	1	2	3	4
AO	I do things like slam doors	1	2	3	4
CI	I endeavour to become calm again	1	2	3	4
AI	I tend to harbour grudges that I don't tell anyone about	1	2	3	4
CO	I can stop myself from losing my temper	1	2	3	4
AO	I argue with others	1	2	3	4
CI	I reduce my anger as soon as possible	1	2	3	4
AI	I am secretly quite critical of others	1	2	3	4
CO	I try to be tolerant and understanding	1	2	3	4
AO	I strike out at whatever infuriates me	1	2	3	4
CI	I do something relaxing to calm down	1	2	3	4
AI	I am angrier than I am willing to admit	1	2	3	4
CO	I control my angry feelings	1	2	3	4
AO	I say nasty things	1	2	3	4
CI	I try to relax	1	2	3	4
AI	I'm irritated a great deal more than people are aware of	1	2	3	4

Items numbered 26-57 in complete version
AO: anger out subscale items; AI: anger in subscale items
CO: control out subscale items; CI: control in subscale items

Center for Epidemiologic Studies Depression Scale (CES-D), NIMH

Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week.

	During the Past Week			
	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
1. I was bothered by things that usually don't bother me.	☐	☐	☐	☐
2. I did not feel like eating; my appetite was poor.	☐	☐	☐	☐
3. I felt that I could not shake off the blues even with help from my family or friends.	☐	☐	☐	☐
4. I felt I was just as good as other people.	☐	☐	☐	☐
5. I had trouble keeping my mind on what I was doing.	☐	☐	☐	☐
6. I felt depressed.	☐	☐	☐	☐
7. I felt that everything I did was an effort.	☐	☐	☐	☐
8. I felt hopeful about the future.	☐	☐	☐	☐
9. I thought my life had been a failure.	☐	☐	☐	☐
10. I felt fearful.	☐	☐	☐	☐
11. My sleep was restless.	☐	☐	☐	☐
12. I was happy.	☐	☐	☐	☐
13. I talked less than usual.	☐	☐	☐	☐
14. I felt lonely.	☐	☐	☐	☐
15. People were unfriendly.	☐	☐	☐	☐
16. I enjoyed life.	☐	☐	☐	☐
17. I had crying spells.	☐	☐	☐	☐
18. I felt sad.	☐	☐	☐	☐
19. I felt that people dislike me.	☐	☐	☐	☐
20. I could not get "going."	☐	☐	☐	☐

SCORING: zero for answers in the first column, 1 for answers in the second column, 2 for answers in the third column, 3 for answers in the fourth column. The scoring of positive items is reversed. Possible range of scores is zero to 60, with the higher scores indicating the presence of more symptomatology.

A MANUSCRIPT

(Under Review)

Student perspectives on the reasons for physical violence in a Thai Technical College:

An exploratory study

Abstract

Physical violence in technical colleges in Bangkok has been the subject of public concern in recent years following a number of incidents in which young people died during fights. This study sought to understand the reasons for such violence through a series of semi-structured interviews with 32 young male students who attended a technical college in Bangkok. The analysis revealed that, contrary to previous research, most violence between students occurred outside school, in situations where students from different colleges were likely to interact**.** One of the key motivations for fighting was to seek revenge from previous fights, although most students were unaware of the original cause of the dispute. Students described a range of different responses to feeling threatened, including pooling money to rent a shared flat close to their colleges (so they could change into/out of school uniform to avoid being identified) and concealing weapons for use in defending themselves. These findings are discussed in relation to how an understanding of cross cultural risk factors is likely to contribute to the development of effective violence prevention strategies.

Keywords: Technical College; Thailand; Violence; Qualitative

Introduction

In Thailand, violence is a major public health issue that has a particular impact on young people. In 2009, nearly 3,000 young people were arrested for physical assaults in Bangkok alone, a figure which rose by nearly 50% from the previous year (Royal Thai Police report 2010). Most of those arrested were students from technical colleges enrolled in training programs in vocational colleges. Although incidence and prevalence data about victims is not available for Bangkok, national statistics show that approximately 3,000-4,000 people die each year as a result of being assaulted. This equates to a rate of approximately 4.9 per 100,000 (Bureau of Health Policy and Strategy, Ministry of Public Health, Thailand 2004, 2005). In 2004, the last year in which data are available, the highest age-specific rate was for 15-19 year olds, with a death rate from interpersonal violence of 8.3 per 100,000 people (WHO Kobe Centre 2007).

The 2007 WHO report stated that the causes of youth violence in Thailand were delinquent behaviours associated with substance abuse, lack of family strength and immature personality (WHO Kobe Centre 2007). Specifically, the authors of this report claimed that violence among vocational school students was mainly related to lack of family and school attachment. Fighting usually originated from extra-curricula group activities, hostility, poor school performance, and 'masculine' identification. Unfortunately, although a number of empirical studies related to violence in technical colleges were referred to in the report, these were not cited and have not subsequently been published. This study was therefore designed to establish whether causes of youth violence identified in the WHO report are still relevant and, more broadly, to investigate why Thai technical college students become involved in violent and aggressive behaviour.

Vocational colleges aim to produce skilled workers who have the knowledge and experience to work in industrial areas. The vocational certificate intended for those students who have finished Year 9 (aged 15 years) in a mainstream school and wish to study for two further years to obtain a Vocational Education Certificate or Diploma (Assanangkornchai et al. 2007). Vocational students are more likely to come from lower Socio-Economic-Status (SES) families, to drink alcohol, to use illicit substances, and to engage in physical and sexual violence than are high school (traditional) students (Pradubmook-Sherer 2010). Nearly 90% of all vocational college students are male (Vocational Education Commission, Thailand 2010).

One of the main risk factors for violent behaviour in schools is gender. Men are more likely to be both perpetrators and victims of violence (Cornell and Loper 1998), with studies from around the world consistently showing that men generally engage in higher rates of delinquency, especially violent behaviour, than women (WHO 2002). In this study, Connell's theory of hegemonic masculinity is utilised to understand the intricacies of masculinity in the school context. In Thai society, boys have been socialised to be "real men" or "heroes", and are commonly encouraged to value traits such as honour, respect, bravery, dignity, and family responsibility (Tantiwiramanond 1997). Thai culture is generally accepting of the use of violence as a legitimate means by which males can express their anger and resolve conflict (Pradubmook-Sherer 2010). Those who benefit from exercising violence over subordinates are considered in relation to what has been labelled as 'destructive masculinity'; one of the hegemonic forms that dominate both the gender order and the social order (Messerschmidt 1993).

Since early childhood through to adolescence, young men use various forms of aggression to protect and control their social positions and to fulfil their social needs (Cairns and Cairns

1994). Taunting, teasing, rough-and-tumble play, direct confrontation, and physical attacks are all seen as forms of aggressive behaviour that can serve these functions (Farmer 2000; Pellegrini 1998), whereas bullying can be understood in terms of intentionally negative behaviour toward a victim involving a variety of hurtful actions such as name-calling, social exclusion, and having money taken or belongings damaged, as well as the more obvious forms of hitting and kicking (Crick 1997; Crick et al. 1997; Menesini et al. 1997; Rigby et al. 1997). Although increased levels of testosterone and reduced levels of serotonin have been shown to be associated with increased aggression in both men and women (Studer 1996). Indeed, it is gender role identification rather than gender per se that is an important cause of aggression (Milovchevich et al. 2000). However, it is widely accepted that the environment also plays an important role in the occurrence of violent behaviour (Studer 1996).

Other risk factors related to youth violence, such as family, school, peer and community pressure, have also been identified in a large number of studies conducted in Western countries. For example, school violence has been shown to be related to family SES, family conflict (Herrenkohl et al. 2000), parental monitoring (Henry et al. 2001), school engagement (Battistich et al. 1996), substance abuse (Kann et al. 2000; McMorris et al. 2007), and delinquent peers (Cairns and Cairns 1991; Dahlberg 1998; Herrenkohl et al. 2000). There is also some evidence relating youth violence to drug trafficking and homicide and it appears that these behaviours may also be associated with weak social control, and poorly supervised adolescent networks (Fagan and Davies 2004). However, there have been few studies showing that the risk factors identified in Western populations apply also to Asian cultures (Jang 2002; Le and Wallen 2007). Accordingly, this study used in-depth qualitative interviews to investigate why young Thai men in technical colleges engage in physical violence.

Methods

Participants were recruited from five departments offering the Vocational Educational Certificate, Year Level I-III in one technical college in Bangkok. The college has approximately 600 students, including those enrolled in the Vocational Education Certificate, Year Level I – III, Vocational Education Diploma, Year Level I-II and commercial departments. The recruitment process was annouced by teachers, and the students who were interested in the research contacted the researcher by e-mail. Then the date and time of the interview was confirmed by e-mail. Each participant was reimbursed the equivalent of US $5 for his time and expertise. The majority of the interviews took place in, or close to, the participant's home.

A qualitative methodology was considered to be appropriate, because the research was essentially exploratory in nature. The main method of data collection was a semi-structured interview. A major advantage of this kind of interviewing is that respondents are allowed to answer questions in their own words with minimal control and direction from the interviewer. Apart from ensuring that all of the research topics were covered, the inter-viewer allowed the flow of the discussion to be determined in part by the participants. This resulted in a more natural description of events by participants. The main disadvantage of the semi-structured interview is that the responses can sometimes be discursive and wide-ranging and not every issue raised might be covered by every respondent.

The interview was given a broad structure by using a schedule that covered four main topic areas: (a) the student's personal and a family background, (b) peer-family-school-community factors, (c) details of physical assaults, (d) substance abuse. On average, the interviews lasted 45 minutes. All interviews were tape recorded, with the student's permission

(a consent form), and subsequently transcribed verbatim. Data were transcribed in Thai before being translated into English by the first author.

Students were asked at the beginning of interviews to provide aliases. The transcripts were analysed first by identifying the relationship between those factors and physical assult. The narratives relating to physical assult were then investigated to identify motivational statements that explained why the students engaged in fights.

The interviews were designed to allow participants freely to explore and discuss relevant experiences and perceptions of violence. The interviews were treated as a social encounter in which knowledge was shared, and not simply as an occasion for information gathering. Anonymity was assured, so that the participants were not at risk of incriminating themselves in criminal behaviour. The study was approved by the Social and Behavioural Research Ethics Committee at Flinders University, Australia.

Participants

Thirty-two young men participated in the study. They were students in three departments (Power-Electrical, Mechanical, and Building Construction) each of which offers Vocational Education Certificate, Year I-III. The age of participants ranged from 16.5 to 18.5 years, and daily income ranged from US $3.21 to $3.75. Of the 32 participants, the majority (65% - 75%) used motorcycles to travel between school and home. Most (75% - 100%) reported that they drank alcohol, followed by cigarette smoking (75% - 90%) and marijuana use (10% - 25%). Additionally, methamphetamine was used by 10% - 12.5% of the sample. More detailed demographic information is provided in Table 1.

Table 1. Demographic Data

Data	Departments in the Technical College		
	Power&Electrical	**Mechanical**	**Building**
Age (Mean±S.D)			
• Year Level I	16.5 ± 0.5	-	-
• Year Level II	16.13 ± 0.35	16.62 ± 0.74	16.75 ± 0.74
• Year Level III	18.5 ± 1.22		
Receiving Money a day (Mean±S.D)	$3.51 ± 0.63	$ 3.21 ± 0.80	$ 3.75 ± 1.37
Vehicles to school (No.[%])			
• Motorbike	13 (65%)	6 (75%)	-
• Bus	7 (35%)	2 (25%)	2 (50%)
• Car	-	-	2 (50%)
Substance Abuse (No.[%])			
• Cigarette	18 (90%)	7(87.5%)	3 (75%)
• Alcohol	19 (95%)	6 (75%)	4 (100%)
• Marijuana	2 (10%)	2 (25%)	1(25%)
• Drug (Methamphetamine)	2 (10%)	1(12.5)	0 (0)%)

Analysis

All of the transcripts of the interview audiotapes were stored in standard computer files in preparation for data analysis. The investigators used functions available in standard word processing programs to read, highlight, code, group, and search data segments. Axial coding was used to make connections between the major categories (Strauss 1987; Strauss and Corbin 1990). The interpretation of the data and potential alternative interpretations of the data were then discussed among investigators (4 persons). In case of disagreements among

investigators, following discussions the classifications were revised until all of them were satisfied.

The major goal of analysis at this phase of the project was to develop conceptual areas for further inquiry. These represented complete information gaps or provisional major conceptual areas that warranted further exploration and refinement. Quotes from the interviews were reported judiciously within this paper, with certain segments of the quotes emphasised to highlight the key themes of interest.

Results

Participants reported that fights occurred when students were staring at other students who were not friends or were from different colleges. They then typically began to throw things (e.g., glass bottles, bricks) at each other. Physical fights were most likely to occur at bus stops and along the bus route to or from school. Weapons were often used, including swords, knives, and wooden sticks. These were kept in rental units which were used for changing from/to casual uniforms from/to a school uniform, concealing weapons, and partying.

The analyses of the interviews suggested that the hierarchical dominance of senior students provides the context for the development of strong friendships in the technical colleges. This was identified as an important driver of school violence, given that younger students often complied with the desires of senior students by engaging in fights. Revenge was another important motivator, particularly when friends had been injured in the fights. The analysis suggested, however, that the bond between junior and senior students often develops as a way of protecting each other.

Starting Fights

Physical fights were most likely to result from provocation or bullying, in particular from other male students who were from different colleges. Participants suggested that the "challenge message" from staring ("Are you cool?") often quickly escalates to physical aggression (throwing glass bottles, or bricks) and verbal abuse before fighting. Such aggressiveness may be understood as a reassertion of masculinity when men are perceived as threatened.

> **Dear- Power & Electrical -Year II:** *I can't bear with… just like... they <u>look at</u> me as "Do you have any problem with me ? If you have – come on guy…"*
>
> **Ping – Power& Electrical- Year Level II:** *The fight happened because my friend <u>had been bullied</u> everyday when he went to the school….*

On the other hand, teasing or bullying between friends was regarded as a routine activity that students commonly engaged in and which did not routinely lead to violence. In this way, students were able to delineate between teasing and provocation from friends (which was normalised and routine) and teasing and provocation from students of other colleges (which was a "challenge message" and often resulted in physical violence).

> **Au-Power & Electrical-Year II :** *Just a <u>normal activity</u> [teasing and bullying to each other among*
> *friends] we do when we stay together.*
>
> **Am-Power & Electrical-Year II:** *Yes, I do [like to tease or bullying friends]. .. I enjoy it... No- never (friends never got angry). Actually, they are bullying me back<u>- not fighting.</u>*
>
> **Man-Power & Electrical- Year II:** *No [no fighting]- we get along with each other very well and <u>never had any arguments </u>in our groups. We know when we do [provoking each other]<u>- just make fun</u>.*

Participants described the locations where physical violence with students from other colleges occurred, such as when on the bus or at the bus stop. This suggests that much of the violence

occurs as a consequence of the logistics of getting to/from college, rather than being necessarily premeditated. The bus interchanges (where students from different colleges mix) therefore seemed to be a site where a lot of violence occurred.

> *Tee-Power& Electrical-Year III: ...We drive a motorbike to the school- that is OK. It is not quite safe when we drive a motorbike. But if we catch a bus- we will face other dangers as well. ... I was waiting for a bus at the bus stop, then I saw them getting off at the bus stop where I stayed, and they chased us with swords right away.... We have a chance to meet other schools in the same bus.*

> *Joke-Mechanical-Year II: We have a lot of fights because our homes are on the bus route. There are many schools along the bus route..... We cannot avoid – just going along the way....I cannot wear different clothes- the school does not allow it.*

> *Jay-Electrical- Year II : We rarely fight each other in the school, but we are usually engaged in the fight against other schools.*

> *Na –Electrical -Year III: ...there are a lot of fights happened outside the school- not in the school.*

A Rental Place

Under the regulations of the Ministry of Education in Thailand all students have to wear a school uniform and are not permitted to carry any weapons in the school. The person's school is obvious by wearing a uniform, which increases the likelihood of violence (a 'symbol' for violence). A number of participants talked about the need to rent a place (a flat, unit, etc) in which to change from casual clothes into school uniform and keep weapons. By renting a flat students are able to avoid fights on the way to the school by wearing casual clothes, and can also collect weapons kept in the rental house. Additionally, the rental house is used as a party place for friends where they can use illicit substances such alcohol, cigarettes, and drugs.

Bank- Power & Electrical-Year II: I kept it (<u>swords or knives</u>) in a renting room where I was always <u>changing clothes</u> from casual to a formal uniform before going to the school. It (rental house) depends on the area, some places are around 1,000-1,500 Baht (~ $US 28.55-42.85)– or may be up to 2,000 Baht ($US 57.15). Yes.(every department)-doing the same to keep weapons and changing school uniforms in a rental house .

Mo-Power & Electrical-Year III: We rent a house which is close to the school for <u>changing clothes</u>. I am not wear the school uniform when am going out . I will change my casual clothes to school uniform in the rental house, and we <u>keep swords</u> and… there.

Mo-Power & Electrical-Year III: We're gonna engage in a fight every Friday- almost every Friday. Sometimes, we <u>drink alcohol</u> in the home we rent- we always do it. ..We are addicted to <u>alcohol and</u> ...- not going to school - a lot of absences.

Most weapons used in the fights are swords, knives, and big wooden sticks that are freely available at markets. Then, swords are physically modified at garages outside the college in different ways, depending on the purpose which they were to be used for. These are not taken to the college for fear of them being discovered.

Tee- Power & Electrical – Year III: We buy <u>any sword or knife from markets</u>, then we modify them for what we want. There is a samurai sword <u>selling in the market</u> too…… Sometimes, we buy some <u>steel sticks and then are welded for a sword or a knife</u>.

Tik-Power & Electrical-Year III: Both- <u>a big wooden stick or a sword</u>- using often.

Our data suggest that fighting between students of different technical colleges may be partially a result of a process whereby violence is both embedded in and mediated through hegomonic masculine values in which male students display masculinity and physical toughness. Additonally, violence among colleges arose as response to challenges to students' honour, self-esteem and self-image. In addition, weapons were used as a symbol of masculine power to dominate students from other colleges, although these were kept at a rental place in order to conceal them from teachers.

Peer networks

In technical colleges, social networks are very strong because students spend most of their time together, both in the class and afterwards. There are a small number of students in each class (6-30 students), so students feel that they have to 'stick together' and assist each other. Indeed, participants reported going everywhere as a big group in order to protect each other or just to "hang out". As can be seen in the following quotes (emphasis added), this leads to the development of a powerful emotional relationship between students.

> **M – Mechanic-Year II:** *… when we hang out some places- we <u>go together</u> as a big group around*
> *20 people.*

> **Am-Mechanic-Year II:** *…We have to gather friends as <u>a big group</u> before <u>going back home</u> <u>together</u> – that is safe…. They may do something with us but we have <u>many friends to keep eye</u> on that. If here is something happening – we can protect ourselves- such as, not getting off the bus or not let someone getting into the bus.*

Additionally, there appears to be a clear hierarchical system between junior and senior students in the college. Junior students are supposed to obey senior students without argument. This is a traditional characteristic of technical college students.

> **Op-Power & Electrical –Year II** *: I am waiting for junior students finishing the class and <u>sending</u>*
> *<u>them back</u> home [sending them get into the bus]. Yes [It is traditional behaviour]… Senior students <u>did to me last year</u>, so this year I have to do for junior friends.*

> **Singh-Mechanic -Year II:** *Senior students find it easy to get along with them and feel like they are a big brother. Friends are good – we get along to each other. Junior students are good because they <u>are respect to</u> senior students <u>as we d</u>id in Year I.*

> **Guy Electrical- Year II** *: I am usually involved in the fight when I <u>have been invited</u> by senior friends but some time it is up to my decision… We supposed to start fighthing game against*

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other schools first..sort of.. not senior friends… I <u>have never argued</u> with them (seniors) about
why they told me to do like that.. they are seniors.

The invitation from seniors to fight against other schools was extended to juniors who are considered to be close friends. In Thai society, children are taught from an early age to maintain smooth, harmonious interactions with others, particularly in relation to elders and respected authority figures by adjusting to existing situations they do not actually prefer, or by deferring to the wishes of others. Therefore, when seniors invite them to join in the activities (fight or party), they are supposed not to refuse.

> **Man-Power &Electrical-Year II:** *Senior friends <u>have never invited</u> me to join in fighting- but I don't know whether they invited other friends or not.*

> **Op-Power & Electrical-Year II:** *I had <u>never invited</u> by seniors but I don't know about others. Actually- it is up to seniors – if they <u>feel close to someone</u> – they are going to invite them to join their activities.*

Parental monitoring

Parental monitoring is important for Thai technical college students, and family members spend time together everyday (especially over dinner). This is the time when parents engage with their children and if they become aware that their child has been acting improperly (e.g., drinking alcohol, smoking, or using drugs), they will typically chastise and offer advice. Young people rarely argue with this advice, especially when it is from their parents because Thai children are expected to obey and respect their parents. Nevertheless, parental discipline could not prevent youths from engaging in physical fights.

> **Tee-Power & Electrial-Year III:** *Yes- if I get drunk – I will sleep there (a friend's house). If I am not – I will go back home. She (Mom) <u>complained a lots</u> (when he went back home and drank), so*
> *I went to bed immediately <u>without arguments</u> or saying anything.*

Mo- Power & Electrical-Year III : ... I thought that I am able to graduate..I want to do my best for that. I <u>told Mom</u> that I will graduate soon. Really, I don't want to tell Mom about my study –d<u>on't want her to worry</u> so much about me.

Jack-Mechanic-Year II : They (friends) were all dropping off the school. There is only me studying here because <u>Mom told me</u> to study here until graduate. She <u>did not complain</u> anything
(about failure in many subjects)– just tell me to <u>focus on the study</u> here until graduate.

Jay –Power & Electrical-Year II: She (Mom) <u>did not complain</u> anything (resulting from recurrent study in Year II) – just tell me to <u>focus on the study</u> here until graduate.

School Attachment

Participants reported a high level of attachment to their college, and generally reported that the quality of the teaching was good. Despite this, however, they were still behaving violently.

M-Mechanic- Year II: I am satisfy with my grade point. Teachers in the school are O.K- they are
<u>good in teaching</u>. I know a lot of stuffs about cars. <u>Friends are good</u> too- if I can't do– they are willing to help me. <u>We help each other</u>.

Am-Mechanic-Year II: They (teachers) are <u>good in taking care</u> of students, also they <u>try to help</u>
students to graduate from the school.

Chud-Building Construction-Year II: It (the college) is <u>a good place</u> and is quiet.

Community Factors.

Even though some students live in poor areas related to selling drugs around neighbourhoods, none mentioned that they engage in fights related to the drug trafficking.

Dong-Electrical-Year II :...there are <u>selling drugs in the community</u> -nearby my home- just a little bit- not a serious problem…. It is <u>safe</u> although Mom lives alone during the day. We have good neighbours.

Op-Electrical-Year III : ..there are a lots <u>selling drugs around my community</u> but are not many robberies…it is <u>safe</u> to go and come back from the school with the route that I use.

Revenge

Revenge is a significant motivator for technical college fights. It is noted that revenge has been referred to as a psychological reward that may generate a sense of accomplishment, and thereby increases self-esteem and a stronger sense of masculinity. Indeed, when technical college students are injured in fights against other colleges, revenge is usually effected on the same day or the day after the fight.

> ***Joke-Building Construction-Year II:*** *...My friend had been hit with swords at his head during the fight with another technical colleg, then we took him to hospital for suturing.. .We want to got them back <u>in the evening of that day.</u>*

> ***Chud – Building construction- Year II :*** *My friend had been provoked from other schools, so we gathered friends around 7-8 people and waiting for them at the bus stop. After they finished the classes and catching a bus. When the bus was passed by, and we saw them- the time had come. We hit bus windows alongside they sat with swords… I don't know whether they got injured or not..We did that<u>.. in the next day </u>after my friend was provoked.*

Additonally, students perceive that revenge constitutes a responsive, spiralling process. However, this process does not necessarily have a start (i.e. the students did not know what 'caused' the violence) or an end (i.e. the students simply wanted revenge in order to honour them). There was not always a rationale behind the violence, other than as a form of revenge.

> ***Mo- Electrical -Year III :*** *I <u>have no ideas</u> either. During study here - I don't know reasons for what I do (engage in the fight)*

> ***Jay-Electrical-Year II :*** *I thought <u>why </u>we have to engage in the fights – <u>for what</u> ?*

Anger arousal did not, by itself, usually lead to physical fighting. Participants only reported feeling angry when their friends were injured or when they had been provoked by other college students.

> ***Joke-Building Construction- Year II:*** *I got <u>angry</u> if my friend got injured.*

Ping –Electronic-Year III : … *during waiting a bus, my friends met students from other schools at a bus stop- being provoked everyday… in that day, after they provoked him- my friend ran into me and told about that -then we ran into them together. They had 7 people- we had 2, but I did not fear of them… No I did not (afraid of fight)- just feeling* <u>angry</u> *because my friend had been provoked every day, and that day- we have to do something.*

Psychological consequences

Physical fights among technical college students typically caused psychological distress, depression, and anger. Most students felt stressed, especially in the morning prior to catching a bus to the college. Fighting without weapons and without friends was regarded as potentially life-threatening. Nevertheless, students did not feel much stress or danger on their way back home in the afternoon (after finishing the class), since at these time they would be accompanied by their peers.

Pang –Power & Electrical- Year II: *Yes, I feel* <u>that [stress]</u> *especially* <u>in the morning</u>*, but in the afternoon there are lots of students - so I feel O.K -and not afraid of that too much. When the class finished – all of year levels and departments were finished at the same time.*

Tab-Power & Electrical-Year III : *Yes. I am* <u>stressful</u> *resulting from thinking too much. I thought*
that if we chase them, when we go back home in the other day what it will be happen [it has a probability to be attacked by other college students]. So when the <u>class finished</u>*- I have to wait for friends and going back home together as a big group. It could prevent mistakes [friends keep an eye on the situation and help each other].*

Tik-Power& Electrical- Year III: *I had some kinds of* <u>aware of the fight</u> *sometimes ..don't want to meet them [if he meets other college students alone-so he could get injured during the fight].*

Discussion

Physical violence among male technical college students has attracted national attention in Thailand following the deaths of a large number of young people (Bangkokpost

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newspaper 2010). The current study used semi-structured in-depth interviews with a sample of Thai technical college students to understand more about why students engage in interpersonal violence. Although it is not possible to generalise the findings of the study to all technical colleges in Bangkok due to the small sample size and convenience sampling, this study suggests that aggressive and violent behaviour in Thai male technical college students occurs in a different social context to that which provides the setting for violence in Western and other Asian countries.   In Western cultures, for example, youth violence is thought to be frequently related to substance abuse (Ellickson and McGuigan 2000; Lee et al. 2007; Lowry et al. 1999; National Institute of Justice 1999; Rudatsikira et al. 2008), and verbal assaults (Chen and Astor 2009; Pateraki and Houndoumadi 2001; Rudatsikira et al. 2008). Physical violence in technical colleges in Thailand also appears different from other Asian countries, such as Taiwan and Japan (Chen and Astor 2009; Hilton et al. 2010). A recent Taiwanese study found that most school violence perpetrators reported that violence was related to having fun, and typically was prompted by disagreement or provocation (Chen and Astor 2009).

In this study, verbal abuse among friends in Thai technical colleges was rarely a cause of physical assault, but could lead to a fight when the provocation came from a student from a different college. Unlike other nations where school violence is most likely to occur in the school (Culley et al. 2006), physical violence in Thai male technical colleges rarely happened inside the school, but on the way to or from school. Students living near the college with no other schools along the bus route reported that they had never been challenged by senior students to engage in fights and had gone home directly after the class finished.

Even though students might travel together in a big group, this could not necessarily be defined as a "gang". Gangs are different from peer groups in terms of territoriality (Klein

1996), structure and powerful group processes (Bouchard and Spindler 2010; Decker 1996). For example, 'street gangs' are "something special, something qualitatively different from others groups and from other categories of law breakers" (Klein 1995, p. 197). The first types of gang identified (the social gang) was found to be minimally involved in delinquent activities including drug use other than marijuana and alcohol use. The activities of this type of gang can be likened to general adolescent experimentation in drug use, drug sales, and one particular type of delinquency - vandalism. This study clearly showed that students drank alcohol and a few used methamphetamine (1-2 persons), but they had not been involved in any type of drug trade or even involved in vandalism. They engaged in a gang fight or physical violence in order to protect themselves from students in other colleges.

The family environment has the potential to act as a protective factor against aggression in young people. Parental monitoring can been defined as "a set of correlated parenting behaviours involving attention to and tracking of the child's whereabouts, activities, and adaptation" (Dishion and McMahon 1998, p.61). Parental monitoring helps to create balance in family relationships and is associated with high levels of communications and support in the child-parent relationship (Ceballo et al. 2003). In this study, a lack of parental monitoring did not appear to be strongly related to school violence. The interviews clearly showed that parents are concerned about their children's behaviour and monitor it closely. Even though a strong bond often exists between parents and children in Thai culture, this does not appear to act as a protective factor. This supports the findings of research conducted with Asian-American youths, which suggest that family bonding (closeness, engagement, monitoring) is largely insignificant in delinquent acts (Jang 2002).

Similarly, school attachment does not appear to act as a protective factor, despite this being consistently identified in studies of non-Asian young people (Hawkins et al. 2000). Nearly all the students in this study liked their school and expressed a high regard for their teachers. This did not, however, stop them from fighting. Nearly every participant reported that he drank alcohol, smoked cigarettes, and used illicit substances. Nevertheless, hardly any of the students believed that they engaged in fights as a result of drug intoxication.

Anger and revenge have been identified as motivators for nearly half of adolescent interpersonal violence (Pfefferbaum and Wood 1994). Vengeance is an attempt to compensate an interpersonal offense by deliberately committing an aggressive action against the perceived offender. Indeed, vengeance can be viewed as an expression of the reciprocity norm: the basic inclination to return harm for harm. The logic of punishment is rooted in vengeance as opposed to retribution. The two are conceptually quite distinct (Govier 2002). Retribution is designed merely to "get even" whereas vengeance is disproportionate and intended to defeat the violator (Barreca 1995).

Even though students do not appear to know why students from other colleges want to abuse them physically, they still engage in fights when their friends get injured. The day of "paying back" is set up as soon as possible, and all students from other school are targets, whether they are offenders or not. Hence, innocent bystanders may get injured (Bangkokpost newspaper 2010). Angry violence, related to vengeance, intended to punish students from the violators' school is planned by friends or senior students. This reflects on the relationship between students in technical colleges. Senior students are more likely to take care of younger students by sending them home and giving them advice when required, thus creating a strong bond between them. Indeed, if senior students invite junior students to engage in a fight or to

join in activities, such as drinking alcohol or paying for a rental house, they are unlikely to refuse. Additionally, after finishing class, students are expected to go back home together in a big group.

Technical college students felt that they need to access to weapons in order to protect themselves. The rental place is an appropriate place for storing weapons that are easy to obtain when needed. Given that physical violence can happen at any time while travelling between college and home, students are especially fearful of violence when travelling from home to college. In order to avoid the violence, nearly 80% of students use motorcycles to go to college. However, they still encounter students from other colleges and often experience stress and anxiety. This is consistent with several findings showing that exposure to violence is strongly related to internalising problems, such as anxiety and depressive symptoms (Cooley et al. 2001; Lynch 2003; Osofsky 1999). Additionally, the high levels of exposure to violence, especially community violence, may promote maladaptive behaviours such as aggressiveness, delinquency, and antisocial behaviour (Barkin et al. 2001; Scarpa 2001). Several studies associate depression with higher levels of violence and serious criminal behaviour (e.g., Beyers and Loeber 2003). The negative consequences of offending (i.e., loss of social relationships, school expulsion) may limit offenders' opportunities to engage in prosocial activities and increase psychological distress within the individual. Furthermore, internalising disorders may impair the capacity to withdraw from risky situations, resulting in failure to engage in self-protective behaviour (Orcutt et al. 2002).

Policy Implications

Physical violence among technical college students in Bangkok has been identified as an extremely serious issue in Thailand. As a consequence, the Thai Government led by the

Ministry of Education is considering serious action to combat school violence, although public policy to reduce the incidence of school violence has yet to be developed. There are preliminary plans from the Minister of Education to send delinquent students from technical colleges to boot camps for disciplinary practice, and this proposal has led to a lot of public debate. This is of concern given US studies which have demonstrated that boot camps are largely ineffective (Tyler et al 2001). The preliminary outcomes of evaluations of boot camps carried out by Vocational Education Commission have never been published. College uniforms are a significant factor leading to fights, abolition of school uniforms might reduce fighting rates. In the US, five essential steps to counter school violence have been identified, including needs and assets assessment, initial planning, strategy adoption, strategy implementation and strategy evaluation (Greene 2005). This study contributes to the first step in response to the needs and assets assessment, however, information about school violence among technical colleges to support the first stage of public policy planning is still very limited. Nonetheless, the findings of this study can inform these debates.

References

Assanangkornchai, S., Pattanasattayawong, U., Samangsri, N., & Mukthong, A. (2007). Substance use among high-school students in Southern Thailand: trends over 3 years (2002-2004). *Drug and Alcohol Dependence, 86*, 167-174.

Barkin, S., Kreitetr, S., & DuRant, R. H. (2001). Exposure to violence and intentions to engage in moralistic violence druing early adolescence. *Journal of Adolescence, 24,* 777-789.

Barreca, R. (1995). *Sweet revenges: The wicked delights of getting even.* New York: Berkley.

Battistich, V., Schaps, E., Watson, M., & Solomon, D. (1996). Prevention effects of the child development project : Early findings from an ongoing multi-site demonstration trail. *Journal of Adolescent Research, 11,* 12-35.

Beyers, J. M., & Loeber, R. (2003). Untangling developmental relations between depressed mood and delinquency in male adolescents. *Journal of Abnormal Child Psychology, 31,* 247-266.

Bouchard, M., & Spindler, A. (2010). Gangs, groups, and delinquency: Does organization matter? *Journal of Criminal Justice, 38,* 921-933.

Bureau of Health Policy and Strategy, Ministry of Public Health. (2004). *Public Health Statistics 2004*. Retrieved from : http://203.157.19.191/input_bps.htm.

Bureau of Health Policy and Strategy, Ministry of Public Health. (2005). *Thailand Health Profile 2001-2005*. Retrieved from: http://www.moph.go.th/stat1.php.

Cairns, R. B., & Cairns, B. D. (1991). *The sociogenesis of aggressive and antisocial behaviors. In J. McCord (Ed.), Facts, Frameworks, and Forecasts*. New Brunswick, NJ: Trabsaction Publishers.

Cairns, R. B., & Cairns, B. D. (1994). *Lifetimes and risks : Pathways of youth in our time*. New York. Cambridge University Press.

Ceballo, R., Ramirez, C., Heran, K. D., & Maltese, K. L. (2003). Community violence and children's psychological well-being: Does parental monitoring Matter ? *Journal of Clinical and Adolescent Psychology, 32*, 586-592.

Chen, J. K., & Avi Astor, R. (2009). The perpetration of school violence in Taiwan : An analysis of gender, grade level and school type. *School Psychology International, 30*, 568-584.

Cooley-Quille, M., Boyd, R. C., Frantz, E., & Walsh, J. (2001). Emotional and behavioral impact of exposure to community violence in inner-city adolescents. *Journal of Clinical Child Psychology, 30*, 199-206.

Cornell, D. G., & Loper, A. B. (1998). Assessment of violence and other high-risk behavior with a school survey. *School Psychology Review, 27,* 317-330.

Crick, N. R. (1997). Engagement in gender normative versus nonnormative forms of aggression: Links to social psychological adjustment. *Developmental Psychology*, *33*, 610-617.

Crick, N. R., Casas, J. F., & Mosher, M. (1997). Relational and overt aggression in preschool. *Developmental Psychology*, *33*, 579-588.

Culley, M. R., Conkling, M., Emshoff, J., Blakely, C., & Gorman, D. (2006). Environmental and contextual influences on school violence and its prevention. *The Journal of Primary Prevention, 27*, 217-227.

Dahlberg, L. L. (1998). Youth violence in the United States. Major trends, risk factors, and prevention approaches. *American Journal of Preventive Medicine, 14*, 259-272.

Decker, S. H. (1996). Collective and normative features of gang violence. *Justice Quarterly, 13,* 243-264.

Dishion, T. J., & McMahon, R. J. (1998). Parental monitoring and prevention of child and adolescent problem behaviour : A conceptual and empirical formulation. *Clinical Child and Family Psychology Review, 1,* 61-75.

Ellickson, P. L., & McGuigan, K. A. (2000). Early predictors of adolescent violence. *American Journal of Public Health, 90*, 566-572.

Fagan, J., & Davies, G. (2004). The natural history of neighbourhood violence. *Journal of Contemporary Criminal Justice, 20,* 127 -147.

Farmer, E. M. Z. (2000). Issues confronting effective services in systems of care. *Children and Youth Services Review*, 22, 627–650.

Govier, T. (2002). *Forgiveness and revenge.* New York: Routledge.

Greene, M. B. (2005). Reducing violence and aggression in schools. *Trauma Violence Abuse, 6*, 236-253.

Hilton, J. M., Anngela-Cole, L., & Wakita, J. (2010). A cross-cultural comparison of factors associated with school bullying in Japan and United States. *The Family Journal : Counseling and Therapy for Couples and Families, 18,* 413-422.

Hawkins, J. D., Herrenkohl, T. I., Farrington, D. P., Catalano, R. F., Harachi, T., & Cothern, L. (2000). *Predictors of youth violence*. Washingtong, DC: Office of Juvenile Justice and Delinquency Prevention.

Henry, D. B., Tolan, P. H., & Gorman-Smith, D. (2001). Longitudinal family and peer group effects on violence and nonviolent delinquency. *Journal of Child Psychology, 30*, 172-186.

Herrenkohl, T. I., Maguin, E., Hill, K. G., Hawkins, J. D., Abbott, R. D., & Catalano, R. F. (2000). Developmental risk factors for youth violence. *The Journal of Adolescent Health, 26*, 176-186.

Jang, S.S. (2002). Race, ethnicity, and deviance : a study of Asian and Non-Asian adolescent in America. *Sociological Forum, 17, 647-680.*

Kann, L., Kinchen, S. A., Williams, B. I., Ross, J. G., Lowry, R., Grunbaum, J. A., et al. (2000). Youth risk behavior surveillance--United States, 1999. *MMWR CDC Surveill Summ, 49*, 1-32.

Klein, M. W. (1995). *The American street gang : It nature, prevalence, and control*. New York, NY: Oxford University Press.

Klein, M. W. (1996). Gangs in the United States and Europe. *European Journal on Criminal Policy and Research, 4,* 63-80.

Le, T. N., & Wallen, J. (2007). Risks of non-familial violent physical and emotional victimization in four Asian ethinic groups. *Journal of Immigrant Minority Health,* doi 10.1007/s10903-007-9100-8.

Lee, L. K., Chen, P. C., Lee, K. K., & Kaur, J. (2007). Violence-related behaviours among Malaysian adolescents: a cross sectional survey among secondary school students in Negeri Sembilan. *Annuals of the Academy of Medicine, Singapore, 36*, 169-174.

Lowry, R., Cohen, L. R., Modzeleski, W., Kann, L., Collins, J. L., & Kolbe, L. R. (1999). School violence, substance use, and availability of illegal drugs on school property among U.S. high school students. *Journal of School Health, 69*, 347-355.

Lynch, M. (2003). Consequences of children's exposure to community violence. *Clinical Child and Family Psychology Review, 6*, 265-273.

McMorris, B. J., Hemphill, S. A., Toumbourou, J. W., Catalano, R. F., & Patton, G. C. (2007). Prevalence of substance use and deliquent behavior in adolescents from Victoria, Australia and Washington State, United States. *Health Education & Behavior, 34*, 634-650.

Menesini, E., Eslea, M., Smith, P. K., Genta, M. L., Giannetti, E., Fonzi, A., & Costabile, A. (1997). Cross-national comparison of children's attitudes towards bully/victim problems in school. *Aggressive Behavior*, *23*, 245-257.

Messerschmidt, J. W. (1993). *Masculinities and Crime.* Lanham, MD: Rowman & Littlefield.

Milovchevich, D., Howells, K., Drew, N. & Day, A. (2000). Gender role differences in anger: An Australian community survey. *Personality and Individual Differences, 31,* 117-127.

National Institue of Justice. (1999). *Arrestee Drug Abuse Monitoring Program: 1998 annual report on drug use among adult and juvenile arrestees*. Washington, DC: Author.

No Author, (September 1, 2010). *Schoolboy killed in bus shooting . Bangkokpost .* Retrieved from http://www.bangkokpost.com/news/local/194076/schoolboy-killed-in-bus-shooting. (2010), access September 15, 2010.

Osofsky, J. D. (1999). The impact of violence on children. *The Future of Children, 9,* 33-49.

Orcutt, H.K., Erickson, D.J., & Wolfe, J. (2002). A prospective analysis of trauma exposure: The mediating role of PTSD symptomatology. *Journal of Trauma Stress*, 15, 259-266.

Pateraki, L., & Houndoumadi, A. (2001). Bullying among primary school children in Athens, Greece. *Educational Psychology, 21*, 167-175.

Pellegrini, A. D. (1998). Bullies and victims in school: A review andcall for research. *Journal of Applied Developmental Psychology*, *19,* 165–176.

Pfefferbaum, B., & Wood, P. B. (1994). Self-report study of impulsive and delinquent

behavior in college students. *The Journal of Adolescent Health, 15*, 295-302.

Pradubmook-Sherer, P. (2010). Youth attitudes toward dating violence in Thailand.

International Journal of Offender Therapy and Comparative Criminology, XX(X),1-

25: doi10.1177/0306624X093606659.

Rigby, K., Cox, I., & Black, G. (1997). Cooperativeness and bully/victim problems among

Australian schoolchildren. *The Journal of Social Psychology*, *137*, 357-368.

Royal Thai Police. (2010). *Conference on prevention of students' fights (Report on July,

2009: Thai version)*. Bangkok: Bureau of Royal Thai Police, Thailand.

Rudatsikira, E., Mataya, R. H., Siziya, S., & Muula, A. S. (2008). Association between

bullying victimization and physical fighting among Filipino adolescents: results from

the Global School-Base Health Survey. *Indian Journal of Paediatrics, 75,*1243-1247.

Scarpa, A. (2001). Community violence exposure in a young adult sample : Lifetime

pervalence and socioemotional effects. *Journal of Interpersonal Violence, 16,* 36-53.

Strauss, A. (1987). *Qualitative research for social scientists*. Cambridge: Cambridge

University Press.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research*. Thousand Oaks, CA: Sage.

Studer, J. (1996). Understanding and preventing aggressive responses in youth. *Elementary

School Guidance and Counseling, 30,* 194-204.

Tantiwiramanond, D. (1997). Changing gender relations in Thailand : A historical and cultural

analysis. *Indian Journal of Gender Studies, 4*, 167-198.

Tyler, J., Darville, R., & Stalnaker, K. (2001). Juvenile boot camps : a descriptive analysis of

program diversity and effectiveness. *The Social Science Journal, 8,* 445-460.

Vocational Education Commission (2010). *College in Office of Vocational Educational*

   Commission , Ministry of Education, Bangkok, Thailand. Retrieved from http:

   //www. vec.go.th/doc/DirectorStr/college_eng.php. Access April 16, 2010.

World Health Organization. (2002). *World report on violence and health*. World Health

   Organization, Geneva, Switzerland.

 World Health Organization Centre for Health Development Kobe, Japan. (2007). N*ational*

   Report on violence and health Thailand. Retrived from http://www.who.or.jp/

   publications/2004-2005/CHP_Report_on_violence_and_health_Thailand.pdf .