

DOES THE EXPERIENCE OF PEER VICTIMIZATION IN ADOLESCENCE PREDICT
FUTURE SUICIDAL IDEATION? A CROSS CULTURAL INVESTIGATION

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DEDICATION

This thesis is dedicated to everyone who has supported
me on my venture through graduate school.

This is only the beginning.

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by

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Peer victimization has been linked to adolescent suicide in several countries. Community adolescents from Hong Kong (n= 1694) and the United States (n=481) provided information regarding their experience of victimization, depressive symptoms, and suicidal ideation at two surveys six months apart. This study would examine the predictive relationship between peer victimization and suicidal ideation and the role of depressive symptoms in mediating this relationship. The implications of this study are discussed.

TABLE OF CONTENTS

CHAPTER I	INTRODUCTION.....	7
CHAPTER II	LITERATURE REVIEW.....	10
	Definition of victimization	10
	Forms of victimization	10
	Culture	11
	Characteristic of Victims	12
	History of research	13
	Prevalence	15
	Developmental trends	16
	Gender differences	18
	Culture and victimization	19
	Mental health and victimization	21
	Anxiety and victimization	22
	Aggression and victimization	23
	Depression and victimization	24
	Suicidal ideation and victimization	25
	Culture and depression	26
CHAPTER III	AIMS AND HYPOTHESIS	28
CHAPTER IV	METHODS	30
	Subjects	30
	Procedures	31
	Measures	32
	Statistical Design	33
	Mediation Model	33
	Structural Equation Modeling	34
CHAPTER V	CLINICAL IMPLICATIONS	36
REFERENCES	40

CHAPTER I

INTRODUCTION

Bullying is a worldwide problem among adolescents (Eslea et al., 2004; Smith et al., 1999; Smith, Cowie, Olafsson, & Liefhoghe, 2002). Over the past two decades, the research on bullying and peer victimization has been increasing at a rapid rate. Once thought of as a rite of passage that helps to build character, bullying is now known to have long-lasting harmful effects. It is estimated that up to three-quarters of young adolescents experience some types of bullying (such as rumors, name calling or public ridicule) and up to one third report more extreme experiences of coercion or inappropriate touching (Juvonen, Nishina, & Graham 2000). The experience of victimization includes intentional, unprovoked aggression that aims to cause physical and emotional distress to another child. Studies have shown children who have been victimized to experience current and future maladjustment and psychological distress (Austin & Joesph 1996; Bjorkqvist, Ekman, & Lagerspetz, 1982; Callaghan & Joeseph, 1995; Hawker & Boulton, 2000; Kumpulainen, Rasanen, & Henttonen, 1999; Kumpulainen & Rasenen, 2000; Slee, 1995) as well as suicidal ideation (Smith et al., 1999).

Adolescents who are frequently victimized by peers have a higher degree of suicidal ideation (Rigby & Slee, 1999; Roland, 2002). Victimization and suicide attempts have been related in the literature with reports of victims engaging in self-harm as consequence of continued bullying (O'Moore, 1989; Smith et al., 1999). Completed suicides as a result of peer victimization have been reported in the U.S. by the scientific community (Smith et al., 1999) as well as the media (Bully Online, 2003.) In a Hong Kong community sample, 40% of teenagers indicated that

they had some thoughts of killing themselves in the past two weeks (Stewart, Lam, Betson, & Chung, 1999). These rates are comparable to the United States where some studies indicate that as many as 60% of teenagers identify with such thoughts (Smith et al., 1999). While victimization has been given attention as a contributor to suicidality, few studies examine the possible medication of depression in the relationship.

This study was guided by several gaps in the literature on victimization and suicidality. First, although culture would be expected to moderate the outcomes of aggression in peer relationships, there have been few cross-cultural studies in the literature to provide comparative information about victimization in adolescents (Hawker & Boulton, 2000). Second, studies of peer victimization and suicidal ideation have generally been cross-sectional, limiting information relevant to prediction of suicidal ideation. Third, studies of victimization and suicidal ideation have rarely included information about depressive symptoms, which may be an important mediator of victimization's effects on suicidal ideation. Finally, most examinations of victimization have been restricted to the primary and middle-school years; less is known about bullying among high school youth. The current study examined the relationships among victimization, depressive symptoms, and suicidal ideation over a six-month longitudinal course in high school students in Hong Kong and the United States (U.S.). Of primary interest was the mediating role of depressive symptoms in the association of victimization and suicidal ideation.

The models examined in the literature have been increasing in complexity. Recently, a mediation model was used to examine the impact of social withdrawal, peer rejection, and attitudes towards bullying on negative affect; victimization was found to mediate the relationship (Dill,

Venrberg, Fonagy, Twemlow, & Gamm, 2004). The mediators that intervene in the relationship of being bullied to experiencing suicidality have not yet been investigated. Given victimization's relationship to both depressive symptoms, and the established relationship between depression and suicidal ideation (Abramson et al., 1998; Abramson, Metalsky & Alloy, 1989), it is possible that depressive symptoms mediate the effect of victimization on suicidal ideation.

CHAPTER II

LITERATURE REVIEW

Definition of Peer Victimization

Peer victimization is the experience of harmful attacks against a peer that may include physical, verbal, and socially alienating behaviors (Graham & Juvonen, 2001). Different types of bullying have been identified in the literature such as direct physical attack, indirect physical attack (e.g. on belongings, property), direct verbal attack (oral, letter, text, email), indirect verbal attack (spread rumors), social exclusion from normal group activities, institutional aggression or manipulation, or spreading nasty rumors (Smith & Shu, 2003). The literature suggests that these attacks can be defined as bullying if the following five criteria are met (Greene, 2000). First, the bully must intend to inflict harm or fear upon the victim. Second, the aggressive attack should occur repeatedly to the victim. Third, the victim should not have provoked the attack by the aggressor with physical or verbal aggression. Fourth, the bullying occurs in a familiar social group. Finally, there is an unequal distribution of power in the relationship with the bully possessing more power than the victim.

Forms of Victimization

Distinctions in the forms of peer maltreatment have been of interest in the literature and are relevant to the current study. Peer victimization has been distinguished between physical and relational victimization (Crick & Grotpeter, 1996; Crick & Bigbee, 1998). Physical victimization is defined as peer maltreatment by direct format such as hitting, grabbing, touching, or chasing (Ross, 1996). Relational victimization includes behaviors which threaten or damage peer

relationships of friendship or acceptance by spreading rumors, excluding someone from an activity, or playing cruel tricks (Crick & Grotpeter, 1996). Factor analysis by Crick and colleagues (1999) reveals that physical and relational victimization load on separate factors that are only moderately correlated. They are distinct forms of aggression and victimization that have unique effects.

The type of victimization, physical or relational, was found to differentially influence psychological distress. For example, a study with 474 third through sixth grade elementary school children found that relational victimization associated with loneliness, depression, social anxiety, and social avoidance significantly more than physical victimization (Crick & Grotpeter, 1996). Furthermore, adolescents who were victims of both relational and physical victimization had higher levels of depression, externalizing behavior, and loneliness when compared to adolescents victimized relationally or physically only, followed by adolescents who were not victimized (Prinstein, Boergers, & Vernberg, 2001).

Culture

The distinction between relational and physical victimization is also useful because the nature of victimization may change in different cultural contexts. In social and cultural contexts where physical aggression is tolerated more readily, there may be a higher proportion of physical victimization compared to contexts where the overt expression of aggression is discouraged. In the latter situation covert strategies, such as social isolation, may be more acceptable. A number of Asian cultures share common sociocultural structures related to the expression of aggression that would be expected to influence the manifestation of bullying. In these cultures, overt aggression is

strongly discouraged beginning at early socialization (Wu, 1996). Culture's influence can be seen in the nature of the bullying that is most common. "Verbal" bullying was the most common type of bullying behavior reported by primary and junior middle school students in China (Wenxin, 2002). A form of collective bullying, *ijime*, is a common occurrence in Japan (Morita, Haruo, Soeda, & Taki, 1999; Tanaka, 2001). These behaviors involve ignoring and exclusion rather than outright physical violence and are commonly expressed and experienced by youth of both sexes (Morita et al., 1999).

Characteristic of Victims

The literature suggests that clear personality characteristics of victims exist and are pertinent to the future development of the child (Olweus, 1994). Though the majority of research has focused on males, through more current research these characteristics have been found to be typical for females as well. Two types of victims have been identified by the literature: passive or submissive victims and provocative victims. Even though this study does not distinguish between the two types of victims, it is important to understand both.

Passive victims often have been described to have low self-esteem (Hawker & Boulton, 2000), low self-confidence (Rigby, 1993), feelings of worthlessness (Olweus, 1994), and fear (Kochenderfer-Ladd, 2004). They tend to feel that they are stupid, unattractive, and ashamed (Olweus, 1993). Others view them as cautious, sensitive, tense, insecure, and quiet (Olweus, 1994). In addition, boys who are victimized tend to be perceived as physically weaker and have fewer friends than those who are not victimized (Olweus, 1995).

A recent Canadian National Survey of Children and Youth showed that victims are likely to feel anxious and disliked by their peers (Beran, 2004). Characteristically, passive victims do not provoke peers but are considered easy targets. In fact, they have a negative attitude towards violence and aggressive behaviors (Olweus, 1993). Victims are more likely to be targeted rather than popular assertive peers because they will not stand up for themselves when conflict arises (Nansel, 2001; Olweus, 1995; Schwartz, Dodge, & Coie, 1993). Instead, passive victims traditionally react to bullying behavior by crying or withdrawing (Olweus, 1994). Research suggests that they internalize their distress, and as a result they are found to have more depressive symptoms and suicidal ideation compared to their peers (Olweus, 1994).

Provocative victims also known as bully-victims are children who are both bullies and are bullied by others (Olweus, 1978). They are described in the literature as impulsive and emotionally reactive with anxious and aggressive reaction patterns (Olweus, 1994). Provocative victims characterize themselves as possessing numerous negative qualities, but also consider themselves to be powerful (Kaltiala-Heino, Rimpela, Ranten, & Rimpela, 1999). This discrepancy in self concept may explain the fact that these victims have significantly more mental health problems compared to children who are just victims or bullies (Kaltiala-Heino, et al., 2000). Often, proactive victims have hyperactive behavior and difficulty concentrating which causes irritation to others around them and leaves them alienated from their peers (Olweus, 1994).

History of Research

Based on the review of literature by Smith and Brain (2000), the following is a summary of the history of research of peer victimization and bullying that has been conducted.

Victimization and bullying among children is certainly not a new phenomenon. Despite the fact that people have been long aware of this problem, the effect of peer aggression has only been systematically studied for two decades. Research of aggression initially began in the 1960s by investigating aggressive actions of a group towards an individual, also known as mobbing. Soon to follow in Scandinavia during the 1970s, Dan Olweus coined the term bullying by conducting studies that focused on attacks carried out by one or more person that intended negative consequences which would occur over a long period of time and be directed toward a victim that was weaker in power (Schuster, 1996). Around the same time Finland, the United Kingdom, and Ireland started to develop research programs to study bullying. By the late 1980's, bullying and victimization gained international attention in the United States, Great Britain, Australia, Canada, and the Netherlands (Olweus, 1995). The characteristics of bullies and victims developed in the literature from research in Finland. In 1990s, European countries began addressing research findings by engaging in national interventions and creating public policies to contain the growing problem of victimization and bullying. Currently national initiatives to prevent bullying and victimization in Norway and Sweden include anti-bullying legislation (Olweus, 2001).

Japan developed their research based on "ijime", a specific Japanese word that corresponds closely to the English word for bullying, and was initially considered by the Japanese to only be a problem in their country. Initial studies of the nature and frequency of "ijime" suggested a decrease in the problem and caused a decline in the research activity. However, a succession of suicides from 1993 to 1995 launched a second phase of research which continues to date and Japanese researchers have now began to incorporate Western findings. Recently other

Asian countries such as South Korea and China have also been investigating the role of peer victimization and bullying in their societies (Schwartz, Farver, Chang, Lee-Shin, 2002; Wong, 2004).

Thus far, studies have investigated the prevalence, types of behavior, and the personality characteristics of victims, bully-victims, and bullies. Research has been conducted with bullying behavior and several psychological (depression, anxiety, aggression, and suicidal ideation) and social (loneliness, academic achievement, family functioning) factors. Additional studies are needed to gain a better understanding of short term and long term consequences of bullying, gender differences, and factors which effect negative effects of peer aggression. Peer victimization is a global issue and additional research comparing cultures would be useful knowledge to gain a wider perspective of the problem.

Prevalence

Rates of bullying and victimization have been found to vary from country to country depending upon the way in which the behavior of bullying and victimization are defined and measured. Extensive surveys by Olweus (1993) in over 700 schools in Norway indicate an average incidence of about 1 in 7 children (approximately 14%) in elementary and middle school involved in bully-victim problems. Other studies in Australia (Rigby, 1993) and the United States (Vernberg, Jacobs, &Hershberger, 1999; Printstein, Boergers, & Vernberg, 2001) indicated instances of bullying and victimization that are the same as or even higher than what Olweus reported. A recent survey by the World Health Organization's Behavior in School Aged Children Survey reported 29.9% moderate or frequent involvement in bullying by a nationally represented

sample of 15, 686 United States youth in grades 6-10 (Nansel et al., 2001). In Japan, the total number of “ijime” incidents in 1997 was 47,790 with the highest rate being reported in secondary school of 23, 234 incidents (Ruiz & Tanka, 2001). Due to these findings, it is increasingly important to study the nature of the impact of victimization and bullying behavior.

It has been found that the prevalence of bullying varies depending upon three factors. It varies with the data source type (self report or peer report), the time over which subjects are assessed (concurrent, school year, or entire school career), and the frequency and duration of attacks (Schuster, 1996). High frequencies of bullying such as 89.3% (Hoover, Oliver, & Hazler, 1992) are usually reported as a result of self- report over the entire school career. Such evidence supports that majority of the population is familiar with the experience of being terrorized.

In a recent nationally representative survey by the National Institute of Child Health and Human Development, 29% of children in US had been involved in some aspect of bullying, either a bully, a victim, or both, that term. When bullying is strictly defined by high levels of repetition, duration of attacks, and imbalance of strength, the prevalence rate of bullying drops to 3% (Olweus, 1993). The fluctuation of bullying is probably most related to the way bullying is defined, but in all studies it has been found to be a significant problem (Carney, 2000).

Developmental Trends

The majority of victimization literature focuses on younger children in elementary and middle school, possibly because there is a substantial decline in physical victimization as children become older (Olweus 1991; Rigby & Slee, 1991; Rios-Ellis, Bellamy, & Shoji, 2000; Whitney & Smith, 1993). Though bullying declines as children become older, it still continues to exist at older

ages. A study by Whitney and Smith (1993) reported 4% of sample of children above 16 who were still victims of bullying. Also victimization at age 8 was associated with victimization at age 16 (Sourander, Helstela, Helenus, & Piha, 2000). Smith's study (1999) revealed the age decline in bullying was due to two reasons. First, younger children have a larger number of older children in school to bully them. Second, younger children do not yet have the social assertiveness to deal with bullying. But the fact remains that one out of four children continues to be bullied as they become older (Kumpulainen et al., 1999).

There have been fewer studies of relational victimization among adolescents than among children, yet it appears to have much relevance for this the adolescent developmental stage. Relational victimization has been reported to increase as boys and girls get older (Bjorkqvist, Osterman, & Kaukiainen, 1992; Crick & Rose, 2000; Prinstein et al., 2001). Among adolescents, approximately 70 percent of girls and 15 percent of boys experience relational victimization rather than physical aggression from peers (Crick & Bigbee, 1998).

It can be inferred that relational forms of aggression become more prominent primarily due to the increased importance of peer support during adolescence. As children mature, sarcasm and innuendos are more likely to be used and understood for harmful purposes. Adolescents become physically stronger and have greater access to weapons, increasing the likelihood that physical aggression will result in more serious consequences of injury or legal trouble. Therefore, older youth may express aggression towards peers in more covert ways. In addition, relational victimization may be particularly harmful among older youth due to the developmental importance of the need for belonging among adolescents (Crick & Rose, 2000). Since adolescents develop

friendships based on self disclosure, sharing private and personal information can be used to harm peers rather than physical aggression (Prinstein et al., 2001).

Even though the prevalence of bullying has been proven to decrease with age, the effects of bullying have been shown to increase in severity as time progresses. A limitation of the literature is the lack of investigation of victimization in older populations. Follow up studies by Olweus (1994) revealed that 35% to 40% of boys who were characterized as bullies in grades 6 to 9 had been convicted of at least three registered crimes by the age of 24. This study will expand the literature by investigating the effects of victimization in the high school population.

Gender Differences

Given the different socialization of girls and boys, differences in the degree and nature of victimization might also be expected. Some studies have shown that boys are significantly more victimized compared to girls (Boulton & Underwood, 1992; Kumpulainen et al., 1998; O'Moore, 1989). Furthermore, boys are more likely to experience physical victimization (Crick & Grotpeter, 1996; Olweus, 1991; Roecker Phelps, 2001), because of gender differences in emphasis on physical dominance and acceptability of physical aggression (Crick & Rose, 2000). Girls may be more likely to experience relational victimization (Crick & Briggs, 1998; Prinstein et al., 2001), because of gender differences that place a greater emphasis on intimate relationships with peers compared to boys (Crick & Rose, 2000). Girls have been found to perceive relational victimization as more harmful than physical victimization (Crick & Grotpeter, 1996). Given the emphasis that female socialization places on interpersonal relationships (Cross & Madson, 1997;

Maccoby, 1990), victimization may be more distressing for girls than for boys, and thus more strongly associated with depressive symptoms and suicidal ideation.

Though the occurrence of bullying is not influenced by gender, research shows that gender is significant in other respects. Gender impacts the pattern of attack and the form of bullying. In more than 80% of cases, boys are more likely to attack boys (Boulton & Underwood, 1992; Olweus, 1991; Whitney & Smith, 1993). Furthermore, boys are more likely to be victims of on physical victimization, while girls are more likely to be victims of relational victimization (Prinstein et al., 2001).

Culture and Victimization

Bullying and victimization among youth have been reported in many different cultural contexts (Eslea et al., 2004; Smith et al., 2002; Smorti, Menesini, & Smith, 2003). In Japan, bullying in schools has been recognized as a significant social problem (Prewitt, 1988; Trembl, 2001). It has been proposed that the relatively high frequency of bullying in Japan is the result of increasing individualistic values with exposure to the West, due to American occupation, rapid cultural change, and a school system that creates high stress but provides few services for special needs youth (Prewitt, 1988). Other contextual issues considered include a pervasive atmosphere in the schools of tolerance of intimidation, and physical punishment by teachers (Trembl, 2001). Bullying in Japan has been described as “a problem of epidemic proportions” (Rios-Ellis et al., 2000). Nevertheless, peer victimization does not appear to be more common in Japan than in western countries (Trembl, 2001). In China, studies of the prevalence of bullying indicate that it is

widespread in primary as well as middle schools (Zhang, Gu, Wang, Wang, & Jones, 2000; Zheng, 2000).

Similar to western findings, boys were more likely victims of physical victimization and girls were more likely victims of relational victimization in Japan (Morita et al., 1999) and China (Zhang et al., 2000). Among Chinese students in elementary, middle, and high school, girls were involved in fewer incidents of bullying overall (Chen & Yue, 2002). In China, girls and students in lower grades presented more sympathy and support towards students who were bullied compared to boys and older students (Zhang, Gong, Wang, Wu, & Zhang, 2002). However, in Japan, girls were reported to be victimized more compared to boys, and compared to girls in other countries (Morita et al., 1999).

The tendency to target vulnerable children has been found to be similar to that in the West; when investigating stereotypes in Japan, students identified victims based on apparent weakness (Ono & Hasegawa, 2001). The conclusion that peer victimization leads to distress in Asian cultures is not surprising. In China, a study examined primary school children's involvement in bullying in conjunction with their personality characteristics and found that being bullied was correlated with poor adjustment on numerous dimensions (Chuanhua & Wenxin, 2003). A recent cross-sectional investigation in South Korea found poor academic adjustment, loneliness, submissive withdrawn behavior, and aggression in victims (Schwartz, Chang, & Farver, 2001; Schwartz, Farver, Chang, Lee-Shin, 2002). A retrospective study in Japan suggested that victims of childhood bullying were prone to depression due to poor coping strategies and interpersonal skills (Araki, 2002). In the mid 1980s, sixteen students were believed to have committed suicide

due to school victimization in Japan over a span of two years (Morita et al., 1999), and the association between ijime and suicide has been explicitly formulated (Tanaka, 2001).

Asian cultures fall into the group that has been described as “cultures of interdependence” (Kagitcibasi, 1996). In such cultures, relationships with others are emphasized more strongly than individual needs. The quality of the individual relationships to others has been shown to be a more important contributor to life satisfaction compared to self-esteem in Hong Kong than in the United States (Kwan, Bond & Singelis, 1997). For this reason, it could be anticipated that interpersonal distress resulting from victimization would be greater among adolescents in Hong Kong than in the United States.

Mental Health and Victimization

Peer victimization has been shown to have profound effects on mental health (Kumpulainen et al., 1999; Kumpulainen & Rasanen, 2000). Bullies manifest more externalizing behavior as a result of engaging in bullying, while victims displayed more internalizing behavior as a consequence of peer harassment (Kumpulainen et al., 1998; Kumpulainen & Rasanen, 2000; Sourander et al., 2000). Children who are victims of bullying behavior have been found to have more psychiatric symptoms compared to other children (Kumpulainen et al., 1999; Kumpulainen et al., 2000, Rigby & Slee, 1999). There are very few longitudinal studies examining the effects over time of peer victimization on the mental health of children. The existing research, however, predicts future psychological disturbance as a result of childhood victimization (Kumpulainen & Rasanen, 2000; Owleus, 1993; Sourander, Helistela, Helenus, & Piha, 2000).

For example a 7-yr longitudinal study by Kumpulainen & Rasanen (2000) evaluated

bullying behavior in Finish elementary school children at the ages of 8, 12, and 15 years old. Based on their experiences of bullying from self report measures, the children were divided into four groups: bullies, victims, bully-victims, and controls. Questionnaires were completed by the parents, teachers, and children themselves in order to assess for psychiatric symptoms and deviance between the four groups. The results found that bullies and victims at the age of 8 and 12, were prone to have psychiatric symptoms in later years or at the age of 15. The bully-victims were found to have the most psychiatric symptoms both concurrently and in the future compared to all groups. The results suggest that bullying is not a single occurrence, but it is connected to future psychopathology.

Another longitudinal investigation by Kochenderfer-Ladd and Wardrop (2001) examined changes of social status in relation to their peer victimization of 388 children, beginning in kindergarten until they reached third grade. Children who moved from nonvictim to victim classification showed increasing levels of loneliness and decreasing social satisfaction. In contrast, children that changed from victim to nonvictim status did not necessarily improvement in loneliness or social satisfaction. Thus, suggesting that the experience of peer victimization has a long lasting effect.

Anxiety and Victimization

Anxiety was found to be a risk factor for victimization (Roland, 2002). A study by Craig (1998) compared the role of bullying behavior and victimization with anxiety between bullies, victims, and bully-victims. This study consisted of 546 Canadian children in grades five through eight who were asked to complete self report measures. As expected, victims reported higher

levels of anxiety compared to bullies. It has been suggested that bullies identify victims by their anxiety and low self esteem. Craig (1998) found anxiety and depression to be associated with all types of victimization (verbal, physical, and indirect). Furthermore, a previous study by Slee (1994) found victimization to be significantly associated with fear of negative evaluation for boys and girls, suggesting that victims become nervous in evaluative situations with peers. Thus, creating an environment in which victims feel uncomfortable. When feeling uneasy, the anxiety level of victims will increase and make them more vulnerable for future attacks of bullying.

Many studies have found low self esteem and low global self worth to be associated with repeated victimization (Boulton & Smith, 1994; Olweus, 1993; Slee, 1993). However, a study by Salmon and colleagues (1998) suggests that low self esteem may actually derive from feelings of anxiety or depression. The study examined the relationship between self esteem and victimization of a British sample (N=904 students, aged of 12 to 17 years) using a logistic regression model which controlled for anxiety and depression. The implications were made when the multivariate analysis yielded as a nonsignificant finding.

Aggression and Victimization

Aggression is also associated with bullying. Higher levels of impulsivity, anger, and depression are associated with bullying over time (Bosworth, Espelage, & Simon, 1999; Espelage, Bosworth, & Simon, 2001). Kochenderfer-Ladd (2004) recently conducted a study with 145 ethnically diverse children in kindergarten through fifth grade who attended a predominantly low-to middle-class school. The children were presented with hypothetical scenarios to examine the emotional reactions to peer aggression. Victims of previous bullying behavior reported more

intense negative emotions such as fear and anger than did non-victims. Since victims are known to internalize behaviors (Kumpulainen et al., 1998; Kumpulainen & Rasanen, 2000; Sourander et al., 2000), they would be at higher risk for psychological harm.

Depression and Victimization

Studies show that victimization is positively associated with depression (Austin & Joseph 1996; Bjorkqvist et al., 1982; Callaghan & Joseph, 1995; Kumpulainen et al., 1999; Kumpulainen et al., 2000; Slee, 1995). It has been shown that victimization is associated with current episodes of depression (Callaghan & Joseph, 1995; Neary & Joseph, 1994) as well as associated with future depressive symptoms (Sourander et al., 2000).

Callaghan and Joseph (1995) examined the relationship between peer victimization with several aspects of self concept. A sample (N=120, aged 10-12 yrs) from two schools in Northern Ireland reported higher scores of victimization and with greater current depressive symptomatology, lower global self-worth, and poorer perceptions of academic competence, behavioral conduct, and physical appearance.

An eight year longitudinal study by Sourander and colleagues (2000) examined the factors associated with victimization and bullying in Finnish children who were born in 1981 by teacher, parent, and self report questionnaires. A high level of self-reported depressive symptoms of children at age 8 was associated with victimization and bullying 8 years later. Victimization, rather than bullying, was most persistent during the eight year follow up study. Though depression is associated with victimization currently and in the future, the literature has not identified depression as the cause or consequence of depression.

Suicidal Ideation and Victimization

A substantial relationship between depressive symptoms and suicidal thoughts has been established in victims of bullying (Roland, 2002). It has been found that students who engage in bullying others are at higher risk of suicidal ideation (Kialala-heino, Menesini, Eslea, Smith, & Genta, 1999). In the early 1980's, newspaper articles reported the death of three boys who committed suicide in Norway, attributing the cause of their deaths to severe bullying which they were subjected to in school (Olweus, 1993). Since then adolescent suicides in other countries including the United States have been linked with disturbed peer relationships (Rigby & Slee, 1999). Victimization and suicide are related in the literature with reports of victims engaging in self-harm as consequence of continued bullying (Prewitt, 1989).

Rigby and Slee (1999) examined the relationship among suicidal ideation, perceived social support, and involvement in bullying behavior by self report and peer nominations of adolescents in secondary school from South Australia. Victims that indicated involvement in bullying problems at school, especially for students with relatively little social support, reported a higher degree of suicidal ideation.

A study by Roland (2002) examined 2,088 boys and girls from 38 municipalities in Norway and compared their reports of depressive symptoms and suicidal thoughts. Both bullies and victims reported high scores of depressive symptoms and suicidal thoughts. Surprisingly bullies scored higher on suicidal thoughts, though not significantly more than victims, attributing higher levels of aggression by bullies. This study established a substantial relationship between suicidal thoughts and depressive symptoms. But both bullies and victims had higher suicidal

thoughts in comparison to neutral pupils. Another study by Mills and colleagues (2004) investigated the relationship of bullying, depression, and suicidal thoughts and behaviors in Irish adolescents (aged 12-15 years) and had similar findings. Victims of bullying were significantly more likely to attempt suicide as a result of suicidal intent. Roland (2002) pointed out the emotional problems associated with bullying are either a consequence of being bullied or a reason why people are victimized.

Our study will contribute to the literature by investigating victimization in the established relationship of depression and suicidality. Evidence suggests that suicidal risk is associated with psychosocial stressors such as bullying rather than psychiatric illness (Gould, Fisher, Parides, Flory, & Shaffer, 1996). By controlling for depression in the relationship of peer victimization to future suicidal ideation, this study will test the existing evidence. In addition, the majority of the longitudinal studies are conducted with similar groups, with few studies assessing the relationship of victimization and depression across cultures.

Culture and Depression

Research on victimization has been examined in several cultures around the world. Yet no studies to date have compared victimization in an eastern culture to that of a western culture. This is particularly troubling because a significant association of depressive symptoms and stressful life events exists across both east and west cultures (Greenberger, Chen, Tally, & Dong, 2000). Culture has been found to influence the expression of depressive symptoms. Cross-cultural observations suggest that somatic symptoms are more commonly expressed by non-Western cultures (Marsella, Sartorius, Jablensky & Fenton, 1985) and specifically Chinese groups (Parker,

Gladstone, & Chee, 2001), whereas feelings of guilt, self-deprecation, suicidal ideation and depressed mood are frequently less common compared to Western groups (Marsella et al., 1985). Triadis (1994) has suggested that individualists are more influenced by “internal” events such as cognitions, whereas communal culture members are more influenced by external regulations and norms. Emphasis on external rather than internal control of events may also reduce the focus on cognitive variables such as hopelessness (Chiles et al., 1989). Given these cultural differences in the expression of depression, an illness influenced by victimization and bullying, it seems particularly important to investigate across the separate cultures of the east and west.

A study by Stewart and colleagues (2002) compared levels of depression of adolescents from the U.S. and Hong Kong. Prevalence rates for adolescents with major depressive disorder in Hong Kong are comparable to the U.S., though depression was found to manifest differently in the two groups. Adolescents with depressive symptoms from Hong Kong reported more loss of energy and fatigue, sleep impairment, and concentration difficulties compared to adolescents from the west. In addition, in both cultures girls manifested higher levels of depressive symptoms compared to boys. This study demonstrated many similarities between the distinct cultures and it paves the way for more comparisons between the two groups in areas such as peer victimization.

Chapter III

AIMS and HYPOTHESIS

- 1) The first aim was to compare levels of victimization, depression and suicidality in Hong Kong versus the United States, and in girls versus boys. We hypothesized that: victimization will be less common in Hong Kong compared to the United States; depression and suicidal ideation will be higher in Hong Kong compared to the United States; and physical victimization will be more common among boys and relational victimization will be more common among girls.
- 2) The second aim of this study was to examine the association among victimization, depression and suicidality. Most previous studies have been limited to cross sectional examinations, and the purpose of this aim was to establish that our parameters were consistent with previous data. We hypothesized that in cross-sectional analyses, victimization, depressive symptoms and suicidal ideation would be correlated in both cultures and sexes. Because of the importance of interpersonal relationships in girls compared to boys, and in Hong Kong compared to the United States, we expected that victimization would be more strongly correlated with suicidality and depression in Hong Kong compared to the United States and in girls compared to boys.
- 3) In longitudinal analyses, depression will predict victimization in both cultures and sexes. We anticipated stronger relationships for girls compared to boys and in Hong Kong compared to the United States

- 4) In longitudinal analyses, victimization will predict suicidal ideation in both cultures and sexes. Again, we anticipated stronger relationships for girls compared to boys and in Hong Kong compared to the United States.
- 5) We further examined whether the relationship between victimization and suicidal ideation was mediated by depressive symptoms. We hypothesized that there would be evidence for such mediation in both cultures and sexes.

Chapter IV

METHOD

Overview

The purpose of this study is to examine the prevalence of victimization in adolescents in Hong Kong and the U.S. Also this study will evaluate the association of victimization, depression, and suicidality. Finally results from this the study will determine if victimization can predict suicidality six months later. The data from this study was taken from results obtained for a larger international study.

Subjects

The Hong Kong sample consisted of 1694 students from secondary schools in Hong Kong. The schools included government and parochial schools, located in both highly urban Hong Kong Island and rural New Territories, in more affluent as well as low socioeconomic areas. The classes offered for recruitment were chosen by the school administration, based on the schedule convenience. Parents were informed about the study and given the option to decline participation; consistent with the expectation and prior experience in some schools, no parent chose to do so. Informed consent was obtained from the children and their parents. Forms of self report measures were completed during class time. While students filled out the questionnaires, research assistants were present to monitor the procedure and answer questions. Questionnaires took an hour to complete, and when students were finished they waited quietly for peers to finish. The voluntary nature of their participation and the confidentiality of their responses were emphasized. All

subjects were required to read English at a 6th grade level; there were no other exclusionary criteria.

The United States sample consisted of 481 students, ages 14 to 18, in 9th–12th grade students from Dallas area public high schools. School officials were first approached to obtain permission to conduct the study within the schools. Informed consent was obtained from the children and their parents. Students were excused from class with no penalty to complete forms of self report measures during school hours. Incentives such as movie passes and restaurant coupons were used to increase participation. While students filled out the questionnaires, research assistants were present to monitor the procedure and answer questions. Questionnaires took an hour to complete, and when students were finished they returned to their class. All subjects were required to read English at a 6th grade level, the only exclusion criteria.

This study was approved by the Institutional Review Board of the University of Texas Southwestern Medical Center and the Ethics Committee of the Faculty of Medicine of the University of Hong Kong.

Procedure

The peer victimization, suicidal ideation, and depressive symptom instruments were administered to all participants on two occasions, i.e., Time 1 (T1) and 6 months later at Time 2 (T2). The stability of the constructs over time are reflected in correlations between .49 and .50 in Hong Kong, and .48 and .69 in the U.S. for T1 and T2 administrations of the instruments used in this study. The instruments used the same items for both cultures.

Measures

Peer victimization was assessed using the *Victimization of Self* subscale, a downward extension of the *Peer Experiences Questionnaire* of 10 items (Dill et al., 2004; Vernberg et al., 1999). The scale investigated physical and relational victimization separately. A confirmatory factor analysis (CFA) verified the two factors for each culture. Four items loaded adequately on each of their appropriate factors; two items were not retained because the loading was weak in one or the other group. The Cronbach's α 's were .70 in Hong Kong and .79 in the U.S. for relational victimization, and .74 in Hong Kong and .81 in the U.S. for physical victimization. In addition, Cronbach's α 's for the full scale were .69 and .81 for the Hong Kong and U.S. participants respectively.

Suicidal Ideation was assessed by a 4-item measure (Lewinsohn, Rhode, & Seeley, 1996). The items ranged from ideation (e.g., thoughts of death, thoughts of killing self, belief that family and friends would be better off if respondent were dead) to intent (e.g., plan to kill self or intent to kill self). A CFA verified a single factor for each culture with each item loading on this factor at .74 or higher. Cronbach's α 's were .81 and .85 for the Hong Kong and U.S. participants respectively.

Depressive symptoms were assessed in Hong Kong using the Chinese version of the revised *Beck Depression Inventory* (C-BDI-II; Chinese Behavioral Sciences Society, 2000), and in the U.S. with the *BDI-II* (Beck, Steer, Brown, 1996). The C-BDI-II items are identical to those in the BDI-II. The versions used in this study did not include the item on sexual interest because several school principles found it objectionable in both samples. Based on previous studies in

several cultures (e.g. Byrnes & Baron, 1993; Byrne, Baron, & Balev, 1998; Byrne, Baron, Larsson, & Melin, 1995), this measure was verified as a second-order three-factor structure that represented the following subscales: Somatic Elements (6 items), Negative Attitudes (6 items), and Performance Difficulty (8 items). Psychometric properties and validity of the C-BDI-II in adolescents in Hong Kong have recently been documented (Stewart et al., 2003). For the Hong Kong and U.S. samples respectively, the Cronbach's α levels were 0.74 and 0.77 for Somatic Elements, 0.70 and 0.80 for Negative Attitudes, and 0.80 and 0.87 for Performance Difficulty. In addition, because the total of the full scale was used in descriptive and traditional analyses, reliability of all 20 items was also calculated. Cronbach's α ' were .89 and .93 in Hong Kong and the U.S. respectively.

Statistical Design & Mediation Model

Baron and Kenny (1986) have specified the criteria to define mediation. The first criterion requires that the mediator (depressive symptoms) be correlated with the predictor (victimization). This relationship will be established in the preliminary analyses. The second criterion is that the mediator (depressive symptoms) be correlated with the outcome (suicidal ideation). The final criterion requires that when the outcome (suicidal ideation) is regressed simultaneously on the predictor (victimization) and the mediator (depressive symptoms), the relationship between the predictor (victimization) and the outcome (suicidal ideation) become nonsignificant, but the prediction by the mediator (depressive symptoms) to the outcome (suicidal ideation) remains significant.

Structural Equation Modeling

The following is an overview of Structural Equation Modeling (SEM) Analyses used to analyze the results. SEM with the Mplus program (Muthen & Muthen, 1998-2001) will be used to examine the cross-sectional and longitudinal models presented in this study. The general procedure followed is described below.

- 1) The group was separated on two dimensions: Culture (Hong Kong versus United States) and Sex (Boys versus Girls). Thus all youth in Hong Kong will be grouped for comparison to all youth in the United States. Similarly, all boys will be grouped for comparison to all girls. “Multigroup” analyses will be performed on combined groups coded either for culture or for sex.
- 2) In all analyses where depressive symptoms will be part of the model, age will be included as an influence on these symptoms. Depressive symptoms are known to increase with age; however, we have no a priori reason to expect that the other variables of interest will be directly affected by age.
- 3) We first established equivalence of the scales across the groups of comparison. The cross-sectional and longitudinal models will be first fit to each of the four groups described above. For the longitudinal model, because of the association of victimization and suicidality, and depressive symptoms and suicidality at Time 1, baseline suicidal ideation levels will be controlled in examining prediction from Time 1 victimization and depressive symptoms to Time 2 suicidality. Thus, the latent variable will be constructed to reflect Time

- 2 suicidality after controlling for baseline levels of this variable will be the residual of the regression of Time 2 on Time 1 suicidality. In the second step, equivalence of the scales across the groups of comparison (i.e. boys versus girls, and in Hong Kong versus the United States) will be examined. In these tests, the factor loadings for each latent variable will be constrained to be equal in the groups of comparison; however, the structural model parameters will be left free. In all cases the fit will be quite adequate.
- 4) Having established the comparability of the scales in each pair of groups (i.e. Hong Kong and the United States; boys and girls) the equivalence of the structural parameters will be assessed, separately for each pair for each of the aims of the study, as reported below. First, the model will be fit to each of the four groups. The chi-square for the model where the factor loadings for the latent variables will be constrained to be equal, but none of the structural parameters will be constrained, served as the standard against which structurally constrained models will be compared. Then, for each parameter, a constraint will be introduced such that the parameter will be held equal in the two groups of comparison (e.g. it will be constrained to be equal in Hong Kong and the United States). The chi-square for the constrained model will be compared to the chi-square for the unconstrained model. Where the constrained model fit significantly less well than the unconstrained model, the specific parameter will be interpreted as being different in the subgroups. Where the fit did not statistically change, the parameter will be interpreted as being the same in the two groups compared.

Chapter V

IMPLICATIONS OF RESEARCH

The first aim was to compare levels of victimization in Hong Kong versus the United States, and in girls versus boys. If victimization was found to be less common in Hong Kong compared to the United States, the findings would be consistent with the literature. The literature suggests that in an individualistic culture like in the United States, overt expression of aggression is tolerated more openly compared to collective cultures such as in Hong Kong. If victimization was found to be more common in Hong Kong compared to the United States, the findings would imply that there were not cultural prescriptions against the expression of aggression. If victimization was found to be more common among boys and than girls across cultures, the findings would be consistent with the literature. The literature supports a more overt aggression in boys compared to girls. However, if victimization was found to be more common among girls than boys, it would be important to investigate the sample further because it would not be consistent with the overall finding in the literature.

The second aim of this study was to examine the association among victimization, depressive symptoms and suicidal ideation. If cross-sectional analyses, victimization, depressive symptoms, and suicidal ideation were correlated in both cultures and sexes, then the set of aims would establish the parameters of the study would be consistent with previous data. It would also reveal that victimization is not limited to one culture and is similarly associated with depression and suicidal ideation in two different cultures. If they were not correlated, then further analyses could not be conducted. If victimization was found to be more strongly correlated with suicidal

ideation and depressive symptoms in Hong Kong compared to the United States, than the findings would support the importance of interpersonal relationships in Hong Kong compared to the United States. In collective cultures like in Hong Kong, interpersonal relationships are highly valued. However if victimization was found to be more strongly correlated with suicidal ideation and depressive symptoms in the United States compared to Hong Kong, than the findings would have several implications that would need further investigation. It could imply that culture does not impact the experience of victimization, suicidal ideation, and depression. It could imply that adolescents in the United States experience interpersonal relationships stronger than Hong Kong adolescents. If the correlation of victimization to suicidal ideation in girls compared to boys was found, it would support the findings in the literature that girls experience higher levels of suicidal ideation and victimization. The opposite finding would not be consistent with previous studies.

The third aim was to examine the predictive relationship of victimization to suicidal ideation. If victimization would have been found to predict suicidal ideation in both cultures and the association was stronger in Hong Kong compared to the United States, than there would be support that adolescents in Hong Kong internalize the negative experience of victimization more strongly than the United States sample. If no difference is found between adolescents in the United States and Hong Kong, the consistency of findings suggest that the experience of victimization and its associations with suicidal ideation may not be related to culture-specific influences. It would be speculated that peer victimization would be a stronger predictor for future suicidal ideation in girls compared to boys. This finding would support previous findings that girls

value interpersonal relationships more strongly than boys which would create more distress and more likely lead to suicidal ideation.

Finally, we examined whether the relationship between victimization and suicidal ideation was mediated by depressive symptoms. If the experience of victimization was found to be mediated by depressive symptoms in both cultures and sexes, then interventions that manage depressive symptoms, resulting from peer victimization, could reduce suicidal ideation. It would be important to consider other possible mediators between victimization and depressive symptoms such as negative self esteem, negative affect, and hopelessness. Specific, maladaptive cognitions may even develop that promote negative mood in victimized children. For example, internal, stable (“kids are mean to me because I am unlikable”) rather than external (“some kids are just mean”) and global (“no one likes me”) rather than specific (“this girl does not like me”) attributions in response to an experience of victimization may exacerbate dysphoric affect in vulnerable children who are victimized. Future investigations could target the uncovering of specific cognitive patterns, both protective against negative mood and risk-enhancing, in response to victimization. If victimization was not mediated by depression, the information about the presence of victimization would increase the child’s risk for suicidal ideation. Thus, peer victimization should be considered a risk factor for suicidal ideation across cultures and sexes. Other possible mediators that would be considered in future studies would be anger, lack of family support, or poor relationships. The findings of this study could guide intervention programs and specifically be able to target vulnerable children who are victimized and/ or assess for level of depressive symptoms in order to prevent development of future suicidal ideation.

This study has some shortcomings. First, all data was obtained through student self report which is susceptible to underreporting levels of depressive symptoms, victimization and suicidal ideation. Though the confidentiality of the measures was emphasized, students may have felt pressure to be consistent with societal demands. Even though victimization often occurs when others cannot detect it, corroborating data from peers, teachers, and parents would have added additional dimensions to our understanding of the victimization experience. Secondly, although all instruments show adequate internal consistency and have been previously been used by the Hong Kong population, they are nevertheless imported. They may lack essential items or miss some variables in the range that does not overlap with that offered by the items developed in North America.

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VITAE

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