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# Suicide Ideation and Suicide Attempt among Asian American Youth in United States: Examining the Effects of Parental Support, Educational Satisfaction, Exposure to Suicidal Behaviors and Religion Affiliation

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Suicide ideation and suicide attempt among Asian American youth in United States:  
examining the effects of parental support, educational satisfaction, exposure to suicidal  
behaviors and religion affiliation

by

Xin Liu

A thesis submitted to the graduate faculty  
in partial fulfillment of the requirements of the degree of

MASTER OF SCIENCE

Major: Sociology

Program of Study Committee:  
Gloria Jones-Johnson, Major Professor  
Daniel Krier  
Meifen Wei

Iowa State University

Ames, Iowa

2011

**DEDICATION**

To: My aunt Liu and hundreds of thousands of adolescents who commit suicide in China  
every year

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## **ABSTRACT**

This study explores the capacity of Durkheim's suicide theory and Hirschi's control theory to explain the suicide ideation and suicide attempt of Asian youth. Using a sample of National Longitudinal Study of Adolescent Health, this research examines how parental support, exposure to suicidal behavior, education satisfaction can accumulate and lead to suicide ideation and suicide attempt among Asian youth. It also explores the effects of religion and marriage in shaping their suicide ideation and attempting suicide.

The results reveal that exposure to suicidal behavior increases the likelihood of suicide ideation and suicide attempt for Asian youth. The results also reveal that education satisfaction is negatively related to suicide ideation and suicide attempt for Asian youth. The results are discussed in light of Durkheim's suicide theory and Hirschi's control theory, and the importance of studying suicide issues among adolescents.

## CHAPTER ONE

### INTRODUCTION

According to Durkheim, among the various kinds of death, there are some that have the peculiar feature of being the responsibility of the victim: the result of an act of which the sufferer is the author; and, in addition to that, it is certain that this same feature is at the basis of the generally held notion of what constitutes "suicide" ([1897] 1951). Based on these, Durkheim defined that "*suicide*" is the term applied to any case of death resulting directly or indirectly from a positive or negative act, carried out by the victim himself, which he was aware would produce this result ([1897] 1951). An attempted suicide is the act so defined, halted before death has occurred ([1897] 1951).

In *Suicide*, what was expressed by those statistical data Durkheim used is the tendency for suicide to afflict any given society. Whatever one may think about the subject, it is a fact that the tendency exists in one form or the other: every society is predisposed to supply a given number of voluntary deaths.

Suicide, as a social phenomenon, has gained increased notoriety in recent years with widely publicized accounts of the "suicide crisis" among Americans and heightened concern over "right to die" issues in the United States as well as abroad. At the time Durkheim wrote, European attitudes to suicide were shaped by three forces. The oldest was virtuous suicide, first practiced by Socrates, cup of poisonous hemlock in hand, serving as his own judge for crimes he committed against the state; virtuous suicide took

a later Roman form when aristocrats committed suicide rather than bring dishonor upon their houses. From its earliest days, Christianity had rejected the virtue in virtuous suicide. Christian theologians asserted that no human being had the right to dispose of life as he or she pleased-only God could decide for death. This belief was elaborated in Church law during the Renaissance, when moral horror at suicide joined prohibitions against infanticide, abortion and contraception; later, capital punishment joined the list. All came to seem the same crime, that of judging when life should end.

Durkheim argued that social rate of suicide can only be explained sociologically. It is the moral constitution of society that determines at any moment the number of voluntary deaths. Thus, for every nation there is a collective force, of a definite level of energy, which drives men to kill themselves. The movements that the victim carries out-which, at first sight, seem to express only his personal temperament-are in reality the outcome and extension of a social state to which they give external form (Durkheim, [1897] 1951).

Undoubtedly, suicide is a form of delinquency. To date, three fundamental perspectives on delinquency and deviant behavior dominate the current scene (Hirschi, 2002). According to *strain* or motivational theories, legitimate desires that conformity cannot satisfy force a person into deviance (Merton, 1957). According to *control* or bond theories, a person is free to commit delinquent acts because his ties to the conventional order have somehow been broken (Matza, 1964). According to *cultural deviance* theories, the deviant conforms to a set of standards not accepted by a larger or more powerful society (Kornhauser, 1963). In *Suicide*, Durkheim argues that the more weakened the



groups to which [the individual] belongs, the less he depends on them, the more he consequently depends only on himself and recognizes no other rules of conduct than what are founded on his private interests (Durkheim, [1897] 1951) which could be explained perfectly by control theory. Control theories assume that delinquent acts result when an individual's bond to society is weak or broken. Since these theories embrace two highly complex concepts, the bond of the individual to society, it is not surprising that they have at one time or another formed the basis of explanations of most forms of aberrant or unusual behavior. It is also not surprising control theories have described the elements of the bond to society in many ways, and that they have focused on a variety of units as the point of control. Social control could be equated with formal regulation or forced conformity by institutions such as the police and courts, it also could be informal mechanisms by which people themselves achieve public order. Examples of informal social control include the monitoring of spontaneous play groups among children, a willingness to intervene to prevent acts such as truancy and street-corner "hanging" by teenage peer groups, and the confrontation of persons who are exploiting or disturbing public space. This study assumes school plays an informal role as a social control. Being happy at school will decrease the likelihood that Asian adolescent think about suicide and attempt suicide. That means school has a control on Adolescent's delinquent behavior as an informal mechanism, such as suicide ideation and suicide attempt.

Whereas rates of death and illness among the young have declined over the past several decades in a context of increasingly advanced medical technology and care, it is

discomforting, at the least, to witness both the high rates and the ubiquity of suicide and suicidal behaviors in today's generation of adolescents. The suicide rate among American adolescents between the ages of 14-25 has dramatically increased during the last 50 years (Maimon, Browning & Brooks-Gunn, 2010).

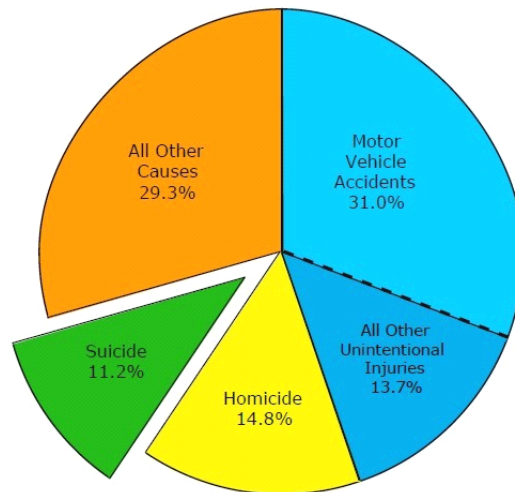


Figure 1.1. Leading Causes of Deaths, Ages 10-24, 2003 (National Center for Injury Prevention and Control 2006)

In 2003, 4,232 adolescents and young adults ages 10-24 took their own lives, resulting in a suicide rate of 6.8 per 100,000. Suicide accounted for 11.2% of all deaths for adolescents and young adults, making it the third leading cause of death for this age group after motor vehicle accidents and homicide (National Center for Health Statistics 2007).

More important, in 2003, the rate of suicide increased ten-fold between early adolescence (ages 10-14) and young adulthood (ages 20-24). Suicide rates continue to increase in adulthood until age 49, decrease between ages 50-74, then increase again at age 75 (National Center for Health Statistics 2007).

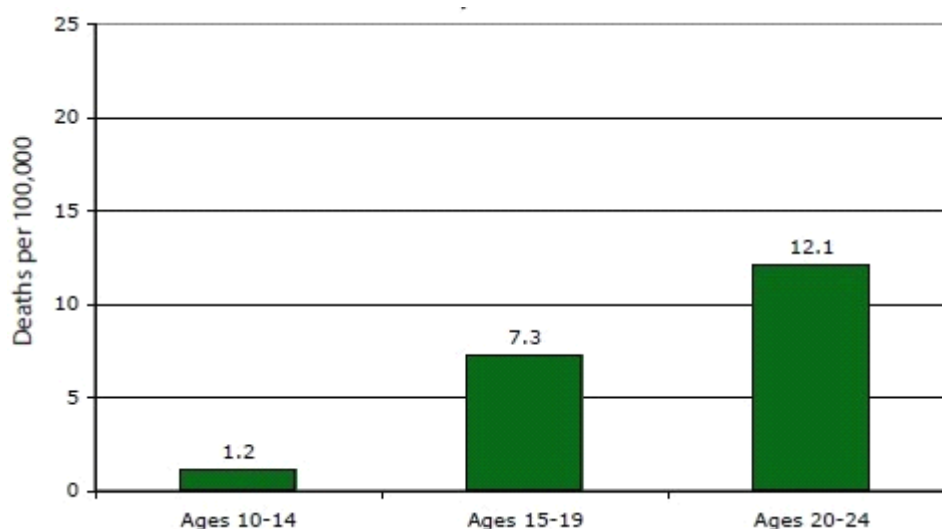


Figure 1.2. Suicide rates by age, ages 10-24, 2003 (National Center for Injury Prevention and Control 2006).

The scientific exploration of suicide among the young is itself a relatively new endeavor. The first major comprehensive literature review of adolescent suicide was conducted by Seiden in 1969, and he found approximately 200 publications on the topic. Since then, however, there has been a dramatic increase in the number of articles and books in this area. Work by investigators such as Sudak et al. (1984), Rosenberg et al. (1987), Pfeffer (1989), Griffith and Bell (1989), and Fingerhut and Kleinman (1990), as well as the Report of the Secretary's Task Force on Youth Suicide (1989), has greatly enhanced our understanding of suicide among youth.

The systematic scientific study of adolescent is particularly important, given the curiously contradictory impressions of adolescent mental health. On the one hand, adolescents are often seen as being in turmoil, and the attention given by the mass media to suicide among adolescents seems to convey the idea that rates among this age group

are far higher than rates for other ages. On the other hand, with long lives in front of them, adolescents are often seen as having little "reason" to kill themselves (unlike older persons, for whom suicide seems more "understandable").

Sociological and psychological studies have indicated that contextual factors (for instance, lack of family support, and poor peer relationships; Perez-Smith, Spirito & Boergers, 2002) are associated with suicide, suicide attempts, and suicide ideation. However, few studies have examined the effects of peer relationships, family support, neighborhood informal control and exposure to suicidal behavior on suicide attempts (Maimon, Browning & Brooks-Gunn, 2010). Durkheim's ([1897] 1951) theory of suicide and social control perspective are used to address these empirical gap (Hirschi, 1969; Sampson & Laub, 1993; Sampson, Raudenbush & Earls, 1997).

Death is no doubt one of the most painful realities of life. The death of someone close leaves both a physical and emotional void that provokes profound feelings of grief, loss, and anger among those who survive (Berman, Jobes & Silverman, 2006). For most youth, however, death happens far away, or at some future time, or to others, especially those who lead lives of excessive risk. Thus in a predominantly youth-oriented culture, particularly among the youth of that culture, death is a topic easily avoided or denied. It is in this context that the death of a young person hurts our sensibilities, especially when that death is self-imposed (Berman & Carroll, 1984). It is in this context that the suicide of a young person hurts the lives of peers and loved ones.

In the next chapter, the intricacies of Durkheim's suicide theory and Hirschi's control

theory are introduced. First, the advantages of Durkheim's suicide theory over a macro society are explained and how those advantages are especially relevant for studies of adolescents. Next, Hirschi's control theory is presented to the reader with special attention to the components that linked with suicidal issues among adolescents. The chapter goes on to discuss some other research devoted to suicide, and then shifts focus to how the theories relates to suicide crisis among adolescents.

Next, Chapter 3 will introduce the dataset that is used in this study. Dependent variables, independent variables, and analysis strategy are presented in addition to the limitations of the dataset.

Chapter 4 presents the results of the analyses, and interposes several speculative arguments with respect to their meaning in addition to pointing out several connections between current findings and past research.

Chapter 5 concludes the study by highlighting the critical findings, and by presenting their implications for furthering research on suicide. Limitations of the research are presented. Finally, implications for policy are addressed.

## **CHAPTER TWO**

### **THEORETICAL BACKGROUND**

#### **Durkheim's Suicide Theory**

One of the first to offer a sociological explanation of suicide was Emile Durkheim ([1897] 1951). Durkheim argued that suicide has a social dimension. People from different religions, classes and religious backgrounds destroy themselves in different proportions. Durkheim asked why this should be. He observed that groups in which there is a good balance between individual initiative and communal solidarity have the lowest rates of suicide. That observation led him to argue that late nineteenth-century society was deeply out of balance, that it lacked a life-sustaining equilibrium between the personal and the collective (Durkheim, [1897] 1951).

In form, the author takes his reader on something akin to an archaeological dig, shifting through evidence from psychiatry, race, heredity, climate and geography to get at the social core buried beneath. The form reflects Durkheim's conviction that social bonds lie below the surface of people's everyday consciousness (Maimon, Browning & Brooks-Gunn, 2010).

Aware of the intuitive appeal of psychological explanations for suicide, Durkheim insisted that suicide rates are social facts that could be studied using sociological concepts and methods (Maimon, Browning & Brooks-Gunn, 2010). Durkheim concludes that suicide rates vary inversely with the degree of social integration and moral regulation

experienced by individuals within religious, domestic and political collectivities by examining suicide within several European countries. According to Durkheim, insufficient social integration enhances individualism and encourages egoistic suicide, while a society that is unable to regulate individuals' naturally unlimited ambitions and aspirations create fertile ground for anomic suicide (Durkheim [1897] 1951). Durkheim offers evidence that suicide rates increase with the attenuation of social integration and normative regulation within societies.

Durkheim provided sociologists with a formidable conceptualization of the link between religion and suicide. Durkheim ([1897] 1951) accepted the finding that more Protestants commit suicide than others, dismissing the influence of dogma and the greater morality of minority religions in favor of an explanation that contrasted Protestant free inquiry with Catholic emphasis on unquestioning acceptance of beliefs and rituals. He located the key to this difference in dramatic societal changes in the late 19<sup>th</sup> century society. Protestantism developed as a religion that responded to "modern" society by loosening its hold on members' collective lives, thus forfeiting its ability to restrain self-destructive impulses. Durkheim's general proposition conceptualized extremes-very weak integration (egoism) or overly strong integration (altruism) produces suicide (Smelser & Warner, 1976). In *Suicide*, Durkheim saw religion only as integrative but in later works ([1915] 1961) describes religion as having regulative aspects. Confusion over the relative and independent roles of integration and regulation has led some scholars to argue that there is no difference between the two (Johnson, 1965).

According to Durkheim, what accounted for rising suicide rates at the end of the 19<sup>th</sup> century was deterioration of traditional forms of social organization. However, he failed to explain how social organization changed and how it influenced religion's role in people's lives (Pescosolido & Georgianna 1989). Pescosolido and Georgianna show that religious affiliation is associated with suicide rates in contemporary American society. And they indicate that the effects are more complex than Durkheim's theory or empirical research derived from Durkheim's ideas would suggest. Specifically, although Catholicism continues to exert a protective influence over suicide rates, some Protestant denominations, predominantly of the evangelical type, do so as well, while many of the Institutional Protestant denominations increase suicide rates. Durkheim's specific hypotheses on protective influence of particular religions are, at best, only partially supported. Yet his fundamental propositions can provide insight for the pattern of results (Pescosolido & Georgianna, 1989).

Studies regarding the contextual importance of the rate of societal change are based on Durkheim's ([1897] 1951) observation that suicides tend to increase in times of crisis or rapid social change, attributing this increase to "disturbances of the collective order" (p.246), which diminish social regulation. As he puts it, "...When society is disturbed by some painful crisis or by beneficent but abrupt transitions, it is momentarily incapable of exercising this influence [regulation]; thence come the sudden rises in the curve of suicides" (p.252). Contemporary authors also have documented the relationship of social changes in kinship patterns as well as urbanization and modernization to changes in



suicide rates (Stack, 1990, 1992, 1993).

Some subsequent research on suicide offers support for Durkheim's claims. Several studies suggest that affiliation with conservative religious groups serve as a protective mechanism against suicide and other deviant behavior (Breault, 1986; Stack, 1985). Other studies confirm Durkheim's family integration hypothesis, finding that marital and family stability are associated with lower suicide rates (Baller & Richardson, 2002; O'Brien & Stockard, 2006; Stockard & O'Brien, 2002). Finally, Pescosolido and Georgianna (1989) suggest that social ties that are based on religious affiliation provide support and guidance (i.e., regulation) against suicide.

### **Hirschi's Social Control Theory**

Social control should not be equated with formal regulation or forced conformity by institutions such as the police and courts. Rather, social control refers generally to the capacity of a group to regulate its members according to desired principles—to realize collective, as opposed to forced, goal (Sampson, Raudenbush & Earls, 1997).

Durkheim said it many years ago: "We are moral beings to the extent that we are social beings." This may be interpreted to mean that we are moral beings to the extent that we have "internalized the norms" of society. The norms of society are by definition shared by the members of society. To violate a norm is, therefore, to act contrary to the wishes and expectations of other people. If a person does not care about the wishes and expectations of other people—that is, if he or she is insensitive to the opinion of

others—then he or she is to that extent not bound by the norms (Hirschi, [1969] 2002). The essence of internalization of norms, conscience, or superego thus lies in the attachment of the individual to others (Hirschi, [1969] 2002). This dimension of the bond to conventional society is encountered in most social control-oriented research and theory.

It is in control theory, then, that attachment to parents becomes a central variable, and many of the variations in explanations of this relation may be found within the control theory. As is well known, the emotional bond between the parent and the child presumably provides the bridge across which pass parental ideals and expectations. If the child is alienated from the parent, he will not learn or will have no feeling for moral rules, he will not develop an adequate conscience or superego (Nye, 1958). But, if the conscience is a relative constant built in to the child at an early age, how do we explain the increase in delinquent activity in early adolescence and the decline in late adolescence? Therefore, the child attached to his parents may be less likely to get into situations in which delinquent acts are possible, simply because he spends more of his time in their presence. However, since most delinquent acts require little time, and since most adolescents are frequently exposed to situations potentially definable as opportunities for delinquency, the amount of time spent with parents would probably be only a minor factor in delinquency prevention. So-called "direct control" is not, except as a limiting case, of much substantive or theoretical importance. The important consideration is whether the parent is psychologically present when temptation to commit suicide appears. If, in the situation of temptation, no thought is given to parental reaction, the child is to

this extent free to commit the act.

If attachment to others is the sociological counterpart of the superego or conscience, commitment is the counterpart of the ego or common sense. The concept of commitment assumes that the organization of society is such that the interests of most persons would be endangered if they were to engage in criminal acts. "Ambition" and/or "aspiration" play an important role in producing conformity. The person becomes committed to a conventional line of action, and he is therefore committed to conformity.

Involvement or engrossment in conventional activities is often part of a control theory. The assumption, widely shared, is that a person may be simply too busy doing conventional things to find time to engage in deviant behavior. The person involved in conventional activities is tied to appointments, deadlines, working hours, plans, and the like, so the opportunity to commit deviant acts rarely arises. To the extent that he is engrossed in conventional activities, he cannot even think about deviant acts, let alone act out his inclinations.

The control theory assumes the existence of a common value system within the society or group whose norms are being violated. Social control theorists assume that there is variation in the extent to which people believe they should obey the rules of society, and, furthermore, that the less a person believes he should obey the rules, the more likely he is to violate them (Hirschi, [1969] 2002).

### **Other Perspectives**

As Minear (1978) documents, there are three basic philosophical positions toward suicide: suicide is acceptable; suicide is allowable under certain circumstances; suicide is never justified. Similarly, Novak had written one of the few books on suicide from a philosophical Judaic perspective, commented that suicide is a complex issue that involves many significant human issues and that neither philosophy nor social sciences can afford to ignore each other's perspective and insights ((Domino, Cohen & Gonzalez, 1981).

### *Social Networks*

As Marty (1976) claims, what distinguishes religions in the United States today is social behavior, what people do, not just what they believe, Churches are "natural communities" dependent upon factors such as member participation and socialization of initiates by members (Gustafson, 1961). This study proposes that social network provides a clue to synthesizing these ideas with the dimension of "integration" found in Durkheim's original formulation. Durkheim's notion of the centrality of social integration in understanding suicide corresponds to the primary starting point of network theory: the nature of social relations influences individual's attitudes, beliefs, and behavior.

If we replace "society" with "networks" in Durkheim's ideas, the notion of the multiplicity of social arenas becomes clearer. To borrow from Simmel's (1955) network imagery, an individual in contemporary society belongs to a number of social circles or networks. Abstract parts of society—"religion," the "family", the "economy"-Fischer (1982) suggests, are really the operation of personal networks. The critical aspects in these

networks center on interaction among members, that is, their social ties. The potential strength of an individual's ties depends, in part, on the "knittedness" of the network itself. The "hidden payoff" of religion that account for its continuous appeal, according to Collins (1982), is the ability of religious networks to provide a source of collective energy on which individuals can draw during difficult times. And strong ties provide emotional support and access to intangible resources (Wellman, 1983).

Network theory permits differentiating analytically between the structure of ties and their functions. One potential function of social network is integration or the ability to provide social and emotional support. Another is regulation, guiding action through advice and behavior monitoring (Umberson, 1987). While integrative and regulative functions may occur together, they do not always do so. The strength of the tie affects the ability of the network to carry out either function, not simply integration.

### *Suicidal Attitudes*

While opinion polls continue to show substantial public disapproval (Gallup, 1978), survey studies were reporting significant support for the rights of suicide victims as early as 1970 (Beswick, 1970). In previous study (Domino et al., 1980), 12% of the respondents felt that society had no right to interfere with the wishes of suicide victims. Approval levels as high as 48% have been found in cases of terminal illness (NORC, 1983), and while clearly a less compelling justification, full 20% of the population approves of suicide even when one is simply a burden on his or her family (Gallup,

1978).

In Sawyer and Sobal's studies, they analyzed several correlations to determine whether the attitude differences they discovered could be explained by a respondent's (1) "dissatisfaction with life," which should lead to greater empathy with and thus tolerance for suicide victims; (2) "anomia," which should produce similar reactions among those who experience a lack of purpose in their own lives; (3) "civil libertarianism," which should translate into greater support for the victim's individual autonomy and self-determination; (4) "prolife" values, since suicide, like abortion, can be seen to violate the moral-religious sanctity of human life; and (5) social participation," which might serve to lessen group pressures to conform to moral-religious prohibitions of this kind (Sawyer & Sobal, 1987).

Contrary to its popular image as a socially deviant act, suicide is considered an acceptable solution to certain life problems, such as incurable diseases (Sawyer & Sobal, 1987). While aggregate approval rates vary with the type of justification given (bankruptcy, family dishonor, etc.), suicide attitudes seem to be based upon coherent beliefs about the "rightness" or "wrongness" of the act, as evidenced by the tendency of supporters and opponents to maintain their relative positions regardless of the reason a person gives for taking his/her own life. These beliefs in turn vary across sociodemographic lines and closely parallel corresponding differences in prolife and civil libertarian values.

### *Moral Issues-Shame*

Suicidal action is considered shameful by most people-in fact, by more than consider mental illness shameful (Ginsburg, 1971). Suicide is not seen as a "personal characteristic" that can be transmitted from parent to child, but as one that may affect the person's future behavior, since under some circumstances he may repeat his attempt.

Ginsburg argues that despite the widespread personal contacts people have had with suicidal behavior, it still is seen as a shameful event; and both the suicidal person and his family are likely to have a pall of stigma cast over them (Ginsburg, 1971). Moreover, the families themselves are likely to feel ashamed-at least in part because of disgrace rather than solely because of guilt or a sense of responsibility. This gives clear support to the widely held belief among health professionals that suicide is a shameful event and a taboo topic in most countries, both currently and historically (Bakwin, 1957; World Health Organization, 1968).

### *Contextual Effect*

Durkheim and early moral statisticians were the first to document variations in suicide rates among and within nations (Durkheim, [1897] 1951; Morselli, [1882] 1975; Quetelet, [1883] 1984). In the year followed, many other scholars examined these differences and found remarkably similar cross-cultural patterns in rates of suicide as well as variations in cultural attitudes and acceptance of suicide (Day 1984; Hendin 1964).

Suicide occurs in a cultural context, but that context, especially in terms of

community attitudes, has not been explored fully. The few studies available (Ginsburg, 1971; Sale, Williams, Clark & Mills, 1975) have utilized open-ended or semi-structured interviews, and the responses are not readily comparable.

Differences in suicide rates and attitudes toward suicide traditionally found among societies continue to exist (Stockard and O'Brien 2002). Such international differences in suicide rates and attitudes toward suicide reflect deep-seated cultural patterns regarding suicide (Day 1984; Hendin 1964). Some earlier studies focused on Hispanic suicide (Wadsworth & Kubrin, 2007). However, few researchers have studied the characteristics of Asian suicide, especially among adolescents. In comparison to other ethnic groups, Asian and Pacific Islander groups have an overall low rate of suicide (Lester, 1994; Shiang et al., 1997). Asian American groups differ in many respects, including population rates in the U.S., culture, and religion. Therefore, it is likely that thoughts, feeling, and views on suicide among these subgroups are also different. Culture may contribute to lower overall suicide rates among Asian American than European Americans (Range et al., 1999). In Western cultures, death would largely be considered an independent act. In contrast, in Asian cultures, death would be thought of in the context of relationships. Thus, in Western cultures, the typical question asked after a suicide is "Why did this happen?" In contrast, in Asian cultures, the typical question is "Who drove this person to suicide?" So it will be interesting to disentangle the factors that have effects on Asian adolescents' suicide ideation and suicide attempt.



### *Suicide Ideation*

A review of literature yielded little research devoted to investigating the factors that shaping suicide ideation among adults or youth. Two studies of adults and one with adolescents suggest links between suicide ideation and life satisfaction. From a nationwide sample of adults aged 18-24 in Finland, using a 20-year follow up technique, Koivumaa-Honkanen et al. (2001), found that life dissatisfaction had a long-term effect on the risk of suicide ideation, however, this effect appeared to be partly mediated through poor health behavior. In another study with adults, Lester (1998) examined the association between suicide ideation and life satisfaction in college students from 18 nations. Of the ten correlations between suicide and life satisfaction domains (e.g., satisfaction with friends, family, self, life), only one correlation was significant (i.e., female suicide ideation and satisfaction with family).

Therefore, much work needs to be done to reliably determine the magnitude and meaning of the association between the possible factors and suicide ideation among adolescents. Alcohol, tobacco and other drug use, violent behavior and sexual risk-taking have been found to be associated with reduced life satisfaction. It is likely that suicide ideation will prove to be associated with life satisfaction in varying degrees. Therefore, this study will investigate the effect of education satisfaction on self-reported suicide ideation and suicide attempt among Asian adolescents,

### *Family and Parental Characteristics*

Among the most studied of variables relating to adolescent suicide is the influence of family, and the parental system in particular (e.g., Wagner, 1997; Wagner, Silverman & Martin, 2003). As role models, as sources of praise and reinforcement, and as nurturers and caretakers, parents have obvious roles in the development of healthy and ultimately autonomous children. When parents, individually or together, have serious conflicts or problems, the adolescent's press for autonomy and growth may be seriously affected (Berman, Jobes & Silverman, 2006).

Compared to normal adolescents, suicidal adolescents report poorer familial relationships and more interpersonal conflict with parents with less affection (Brent, Perper, Moritz, Baugher, et al., 1993; Slap, Vorters, Chaudhuri & Centor, 1989; Wagner, Cole & Schwartzman, 1995; Wagner et al., 2003). They describe time spent with their families as less enjoyable and hold more negative views of their parents (McKenry, Tishler & Kelly, 1983).

In their review of this literature, Wagner et al. (2003) found the following six major lines of empirical research that capture contemporary considerations of adolescent suicide and family factors:

1. Family communications and problems solving. There is a fair amount of evidence that problems between parents and children are implicated in adolescent suicide completions (Brent, Perper, Morritz, Baugher, et al., 1993; Gould et al., 1996; Gould, Shaffer, Fisher & Garfinkel, 1998). In terms of attempted suicide and suicidal ideation, dysfunction in the whole family system has been observed in several prospective studies

(e.g., King et al., 1995; Mckeown et al., 1998).

2. Scapegoating or expendable child. The view that suicidal adolescents are perceived as "expendable" or are differentially treated negatively within a family system dates back to work conducted by Sabbath (1969). Empirical literature linking negative treatment to completed suicide is limited, but there is more evidence that suicidal teen attempters and ideators may be singled out within a family, particularly in relation to physical and sexual abuse (e.g., Brown, Cohen, Johnson & Smailes, 1999; Fergusson, Woodward & Horwood, 2000).

3. Attachment to caregiver. Many studies have focused on attachment-related issues such as separation, loss, or quality of parent-child attachments. Data linking attachment issues to completed suicide is limited, Suicide and attempts and ideation do seem to occur more in single-family homes (e.g., Wagner et al., 1995), but the data are mixed and sometimes contradictory. In terms of quality of attachment, some data suggest an association between suicidality and lower parental care and availability (West, Spreng, Rose & Adam, 1999), whereas other research has not shown that attachment status prospectively predicts suicidality (Klimes-Dougan et al., 1999).

4. Family psychopathology. Evidence of family psychopathology in first-degree relatives is also somewhat mixed. Some data suggest higher rates of psychopathology among family members of adolescent suicide completers (Brent, Bridge, Johnson & Connolly, 1996), attempters, and ideators (Fergusson et al., 2000; Klimes-Dougan et al., 1999), whereas other prospective studies have failed to link suicidal attempts and ideation

with family psychopathology (Brent, Kolko, et al., 1993).

5. Other evidence of family transmission. Family studies of adult probands and behavioral genetics have yielded interesting results. For example, research among the Amish has supported the notion of familial transmission of suicidal behavior (Egeland & Sussex, 1985). Moreover, genetic studies of twins versus studies of adopted siblings provide consistent evidence of genetic influences on suicidal behavior (Papadimitriou, Linkowski, Delabre & Medeleuicz, 1991; Roy & Seigel, 2001).

6. Molecular genetic research. Behavioral genetic research has inspired a contemporary line of study examining specific mechanisms for transmission of suicidal behaviors. These studies tend to focus on serotonin influences (e.g. Arango & Underwood, 1997) and on the serotonin transporter gene (Mann et al., 1997). This largely retrospective line of research needs replication to further clarify conflicting results.

### *Religion and Belief*

Little is known about attitudes toward suicide and how these attitudes interrelate with religious membership. In 1981, Domino, Cohen and Gonzalez conducted a study to investigate Jewish and Christian Attitudes on Suicide. Their report is one of a series studies stemming from the development and application of a suicide opinion questionnaire (the SOQ) and reports on attitudes toward suicide held by a sample of adults of the Judaic faith and a matched sample from various Christian religions.

The results show that more Jewish respondents agree that suicide is allowable in

cases of incurable disease and that there may be situations where suicide is the only reasonable resolution. Jewish respondents also endorse with greater frequency the belief that people should be prevented from committing suicide and disagree with a policy of noninterference with potential suicide victims (Domino, Cohen & Gonzalez 1981). These results are similar to but somewhat more extreme than those reported by Ginsburg, who found that 56 percent of a sample of Nevada residents expressed the view that people do not have the right to take their own lives (Ginsburg 1971). Thus Jewish respondents appear to have a somewhat more flexible attitude toward suicide; yet they clearly do not endorse a hands-off policy.

Minear and Brush studied college students with a 29-item attitudinal scale that measured suicide beliefs, suicide values, and belief in an afterlife. They found that Jews were most supportive of suicide, followed by Protestants and Catholics, but that students with weak or nonexistent religious ties had the most favorable and accepting attitudes toward suicide (Minear & Brush 1980).

### **Specific Hypotheses**

This study investigates these issues by examining four critical questions: (1) what are the differences between Asian youth' suicide ideation/attempt and White youth? (2) What is the relationship between parental support, exposure to suicide behavior, peer relations and religion and suicide ideation/attempt for Asian youth? (3) To what degree do other factors such as age, marital status, education, economic status contribute to suicide

ideation/attempt among this population? (4) What are the different characteristics between Asian adolescents' suicide ideation/attempt and Asian young adults' suicide ideation/attempt?

Based on Durkheim's suicide theory and Hirschi's control theory, this study proposes several hypotheses to test the factors that shape the Asian youth's suicide ideation and suicide attempt. First, the more parental support received, the less likely Asian youth will think about suicide or attempt suicide. Second, the greater the exposure to suicide behavior, the more likely Asian youth will think about or attempt suicide. Third, those youth who identify themselves as Protestant, Christianity and Catholics or having other religion affiliation will be less likely to think about or attempt suicide compared to those who identify themselves as no religion affiliation. Fourth, the greater the satisfaction with education, the less likely Asian youth will think about or attempt suicide.

1. Parental supports decrease the likelihood that Asian youth think about suicide and attempt suicide.
2. Exposure to suicidal behavior increases the likelihood that Asian youth think about suicide and attempt suicide.
3. Religion affiliation will decrease the likelihood of suicide ideation and suicide attempt among Asian youth.
4. A supportive educational environment will decrease the likelihood of suicide ideation and suicide attempt among Asian youth.

These four hypotheses will be empirically tested to solidify the argument that

Durkheim's suicide theory and Hirschi's control theory are necessary tools for the study of suicide problems among Asian youth.

## **CHAPTER THREE**

### **DATA, METHOD, AND ANALYSES**

The effects of parental support, peer relations, exposure to suicidal behaviors and religion on suicide ideation and suicide attempt among Asian youth are examined. It is hypothesized that Asian youth who have more intimate social ties are more likely to hold positive attitudes toward life. Thus they are less likely to justify suicide.

Given obvious methodological and ethical constraints, many investigators retrospectively study data obtained by medical examiners and coroners or data gathered through post hoc interviews, suicide notes, or medical records. As an alternative, many suicidologists choose to study living suicide ideators or surviving attempters. However, data obtained from attempters and ideators is often not readily generalizable to completers, who represent a markedly different population (Linehan, 1986). Linehan's study of suicide (1986) differentiated parasuicide and suicide ideation. Parasuicide refers to suicide attempts or gestures and self-harm where there is no actual intention to die. It is a non-fatal act in which a person deliberately causes injury to himself or ingests any prescribed or generally recognized therapeutic dose in excess (Krietman, 1977). Suicide ideation is a common medical term for thoughts about suicide, which may be as detailed as a formulated plan, without the suicidal act itself. Although most people who undergo suicide ideation do not commit suicide, some go on to make suicide attempts (Beck et al., 1985).



This figure 3.1 below indicates that there are the largest groups of people that think about suicide while a smaller group of people attempt suicide and the smallest group actually complete the suicide. One important thing is that both the parasuicide and suicide overlap with the suicide ideation and they also overlap with each other. So suicide ideation may be the premise of suicide attempt and suicide while suicide is a success of suicide attempt. Because of the rarity of complete suicide, this study just focuses on suicide ideation and suicide attempt. On one hand, it can capture the pre-condition of complete suicide; On the other hand, it could provide some suggestions to prevent the suicide.

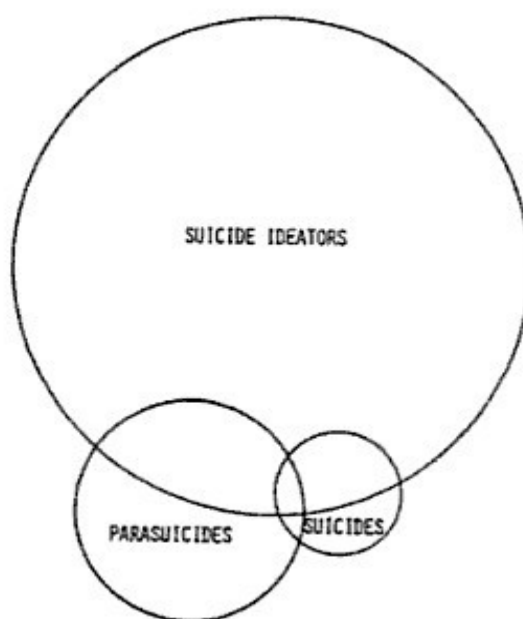


Figure 3.1. Linehan's overlapping populations model. From "Suicidal people: One Population or Two,"

by M.M. Linehan, 1986, *Annals of the New York Academy of Sciences: Psychobiology of Suicidal*

*Behavior*, 487, p.21. Copyright 1986 by the New York Academy of Sciences, U.S.A.

Although some would argue that a true test of Durkheim's ideas is best undertaken

with reports of completed suicide, this study examines suicide ideation and suicide attempts. Durkheim himself argued that suicides are not necessarily unique outcomes, but rather, are a matter "of degree" (Maimon, Browning, & Brooks-Gunn, 2010).

Measuring suicide ideation and suicide attempts rather than completions, however, may result in bias to the extent that "successful" suicide attempts are not included in the outcome variable. Although both successful and unsuccessful suicide attempts are rare, the relative prevalence of the latter is substantially higher (Kessler et al., 2005). Since the sample size which just includes suicide completers will be very small, the study includes those who think about and attempt suicide to get a better picture of the phenomena.

Prospective studies, desirable from a purely scientific perspective, are difficult, if not impossible, to conduct because of the ethical constraints involved (e.g. interviewing a potential suicidal individual and waiting to see whether that person commits suicide with no effort to intervene). Moreover, there are considerable sample and resource considerations; suicide research is often limited because collecting data on samples large enough to be meaningfully interpretable is usually quite difficult. These are some methodological limitations that we can't avoid.

## **Sample**

To measure suicide, data from the National Longitudinal Study of Adolescent Health (Add Health), provided by Carolina Population Center were used in this study. Because the Wave 2 doesn't have exact race information, only Wave 1 and Wave 3 are examined.

The National Longitudinal Study of Adolescent Health (Add Health) is a longitudinal study of a nationally representative sample of adolescents in grades 7-12 in the United States during the 1994-1995 school year. The Add Health cohort has been followed into young adulthood with three in-home interviews, the most recent in 2001-2002, when the sample was aged 18-26. Add Health combines longitudinal survey data on respondents' social, economic, psychological and physical well-being with contextual data on the family, neighborhood, community, school, friendships, peer groups, and romantic relationships, providing unique opportunities to study how social environments and behaviors in adolescence are linked to health and achievement outcomes in young adulthood.

Those who were identified as Asian (Chinese, Filipino, Japanese, Asian Indian, Korean, Vietnamese, and other Asian origins) were combined into one category to contrast with the Whites. The survey asked the question "What is your race?" For suicide, the survey asked two questions "During the past 12 months, did you ever seriously think about suicide?" and "During the past 12 months, how many times did you actually attempt suicide?" While there is precedent for doing so, grouping individuals from diverse countries under the umbrella of "Asian" is not ideal in that this conceptualization ignores the important historical and cultural diversity among individuals from various countries (Martinez, 2002). Portes and Truelove (1987) suggest that this "rubric" did not exist as a self-designation for most of the groups so "labeled" but "was essentially a term of convenience of administrative agencies and scholarly researchers." However, because

much of the census and suicide data are not disaggregated by ancestral nationality and Asians share many characteristics due to their socioeconomic structural locations in the United States (Torres and Bonilla, 1995), creating an "Asian group" will inform our understanding of suicide among these groups.

This study focused on Asian Adolescent at wave 1 and wave 3. Wave 2 is not included in the analysis because it does not have questions related to racial backgrounds. The size of total sample and Asian sample for both waves are displayed in Table 1. The total sample includes Whites, Blacks, Asians, Hispanic and others. Overall, there were 6,504 respondents in the first wave of data and 270 respondents were Asians (approximately 4.2%). In the third wave, there were 4,882 respondents and 227 respondents were Asians (approximately 4.6%).

Table 3.1 Descriptive Statistics

	Total Sample	Asian Sample	Percentage
Wave 1	6,504	270	4.2
Wave 3	4,882	227	4.6

Wave 1 data are used to predict the occurrence of suicidal ideation and suicide attempt among Asian adolescents. Wave 3 data are used to investigate the occurrence of suicide ideation and suicide attempt when Asian Adolescents grew up and to compare the differences between these two time points.

## **Dependent Variable**

Suicide reports are included in the first wave and the third wave. In the first and the third waves, respondents were asked, "In the past 12 months, did you seriously think about committing suicide?" and, "During the past 12 months, how many times did you actually attempt suicide?"

*Suicidal ideation.* Respondents were asked "During the past 12 months did you seriously think about committing suicide?" Response score 0 indicates no while 1 indicates yes.

*Suicide attempt.* Respondents were asked " During the past 12 months how many times did you actually attempt committing suicide?" Response score 0 indicates 0 times; 1 indicates 1 time; 2 indicates 2 or 3 times; 3 indicates 4 or 5 times; 4 indicates 6 or more times.

In the first wave, 83.6% of Asian Adolescent (224 respondents) did not think about suicide during the past 12 months and 16.4% of Asian Adolescent (44 respondents) thought about suicide in the past 12 months. In addition, 13 respondents report one or more times suicide attempt. Of the 13 who attempted suicide, 10 respondents were girls (76.9%) and 3 were boys (23.1%). In the third wave, 96.4% (216 respondents) of Asian descents did not think about suicide while 3.6% (8 respondents) thought about suicide. In addition, only one respondent actually attempted suicide once. There results of wave 1 and wave 3 data show that the more mature the Asian adolescents are, the less likely they think about suicide or attempt suicide. However, at the younger age (wave 1) Asian

adolescents are more likely to think about and attempt suicide than white adolescents. This trend is reversed at the older ages (wave 3) and whites are more likely to think about and attempt suicide compared to Asian adolescents.

Table 3.2 Descriptive Statistics (Wave 1, 1994)

	Asian (N=270)	Whites(N=4294)
Suicide ideation	16.4% (44)	13.56% (582)
Suicide attempt	4.8% (13)	3.6% (155)

Table 3.3 Descriptive Statistics (Wave 3, 2002)

	Asian (N=227)	Whites (N=3376)
Suicide ideation	3.6% (8)	6.7% (226)
Suicide attempt	0.4% (1)	1.3% (44)

As shown in Table 3.4 and Table 3.5, a more comprehensive picture of suicide ideation and suicide attempt among Asian adolescents can be got when comparing across race and gender.

Table 3.4 below shows that a higher percentage of Asian adolescent males and females think about suicide compared to White adolescents. However, the percentage difference is larger for males than females with Asian adolescent males more likely to think about suicide than White adolescent males.

Table 3.4 Past Year Think about Suicide by Gender among Asian and Whites

Adolescents, Wave 1, 1994

	Asian		Whites	
	Male(N=138)	Female(N=130)	Male(N=2067)	Female(N=2191)
Suicide Ideation	15.2%	17.7%	10.7%	16%

Table 3.5 Past Year Attempt Suicide by Gender among Asian and Whites Adolescents,

Wave 1, 1994

	Asian		Whites	
	Male(N=20)	Female(N=23)	Male(N=222)	Female(N=350)
Attempt	15%	43.5%	22.5%	29.7%

Based on Table 3.5 above there is a mixed picture concerning suicide attempt. A lower percentage of Asian males attempt suicide compared to white males while a higher percentage of Asian females attempt suicide compared to white female. With smaller gender differences in thinking about suicide, but female adolescents are more likely to attempt suicide than males for Asian and Whites.

In wave 3, some outcomes are different from those in wave 1. The percentage of adolescents thinking about suicide in the Whites youth by gender is higher than those of the Asian youth. However, the percentage in each group is much smaller in wave 3 than wave 1, which suggests a matured effect.

Table 3.6 Past Year Think about Suicide by Gender among Asian and Whites YoungAdult, Wave 3, 2002

	Asian		Whites	
Suicide	Male(N=111)	Female(N=113)	Male(N=1526)	Female(N=1766)
Ideation	4.5%	2.7%	6.3%	7.1%

Past year attempting suicide by gender for Asian and whites youth adults are displayed in Table 3.7. The percentage of females who attempt suicide is still higher than that of males. In addition the percentage of female Asian young adults who attempt suicide is higher than the one of the female Whites young adults. It is now a well-documented statistic that Asian women between the ages of 15-35 are two to three times more vulnerable to suicide and self-harm than their non-Asian counterparts (Soni-Raleigh, 1996).

Table 3.7 Past Year Attempt Suicide by Gender among Asian and Whites YoungAdults, Wave 3, 2002

	Asian		Whites	
Suicide	Male(N=5)	Female(N=3)	Male(N=96)	Female(N=125)
Attempt	0.00%	33.3%	12.5%	25.6%

From these tables above, the analyses show that females attempt suicide more often



than males while both genders think about suicide.

### **Independent Variables**

A variety of independent variables are included in the analysis capturing respondents' parental support, peer relations, religion, and exposure to suicidal behaviors.

Most of the independent variables are the same at both Wave 1 and Wave 3.

*Gender.* Dummy variable indicating respondents' gender (0 = male; 1= female).

*Age.* Measures respondent's age (in years) at the time of the in-home survey.

*Asian.* Dummy variable indicating respondent is of Asian descent (0= not Asian; 1=Asian).

*Whites.* Dummy variable indicating respondent is of Whites descent (0=not Whites; 1=Whites).

*Religion Affiliation.* Respondents were asked "Do you have religion affiliation?" Scores indicate that whether the respondents have a religion affiliation (no=0; yes=1 ). This variable was originally measured by asking respondents "What is your religion affiliation?" Scores range from 0 to 6 which indicate different types of religion types. This variable was recoded by creating a category which includes all the religion affiliation while another category indicates that the respondents do not have a religion affiliation at all.

*Marital status.* Respondents were asked "Have you ever been married?" and zero indicates no while 1 indicates yes.

*Educational satisfaction.* Respondents were asked for their level of agreement with statements such as "you are happy to be at your school". Response score ranges from 1 (strongly disagree) to 5 (strongly agree). This variable was just included at wave 1. At wave 3, education was measured as level of education completed.

*Mother support.* Respondents were asked "How much do you think she cares about you?" Response score ranges from 1 (not at all) to 5 (very much).

*Father support.* Respondents were asked "How much do you think he cares about you?" Response score ranges from 1 (not at all) to 5 (very much).

*Female friends.* Respondents were asked "Did you talk to {NAME} about a problem during the past seven days?" Zero indicates no while 1 indicates yes.

*Male friends.* Respondents were asked "Did you talk to {NAME} about a problem during the past seven days?" Zero indicates no while 1 indicates yes.

*Income.* Respondents were asked "How much money do you earn in a typical non-summer/summer week from all your jobs combined". Zero indicates none while 1 indicates range \$1 to \$900. This variable is only included in wave 1.

*Exposure to suicidal behaviors of family.* A dichotomous variables indicating whether any of the respondent's family members have ever attempted suicide (0=no; 1=affirmative response).

*Exposure to suicidal behaviors of friends.* A dichotomous variables indicating whether any of the respondent's friends have ever attempted suicide (0=no; 1=affirmative response).

*Education level.* Respondents were asked "What is the highest grade or year of regular school you have completed?" Response score ranges from 1 (6<sup>th</sup> grade) to 22 (5 or more years of graduate school). This variable was just measured at wave 3.

*Economic status.* Respondents were asked "what is your best guess of your total personal income before taxes?" Response score ranges from 1 (less than \$ 10,000) to 8 (\$75,000 or more). This variable was only included in wave 3 when the Asian adolescents live their lives independently.

## **Analyses**

The analyses were carried out in three stages. First, the independent predictors were regressed on the two dependent variables, suicide ideation and suicide attempt, to provide the overarching picture of suicide ideation and suicide attempt to test the competing theoretical assumption discussed earlier for both wave 1 and wave 3. Second, since the distribution of the dependent variables suicide ideation and suicide attempt are highly skewed, logit regression was used to examine the effects of independent variable on suicide ideation and suicide attempt among Asian adolescents (wave 1) and Asian young adults (when they grew up, wave 3) to determine which independent variables have significant effects on dependent variables in this two different waves. Third, the outcomes of regressions for Asian youth will be compared with the ones for the total sample to investigate the characteristics of suicide ideation and suicide attempt among Asian youth.

## **CHAPTER FOUR**

### **FINDINGS**

#### ***Correlation Results***

From the correlation matrix Table 4.1 and Table 4.2 below, religion and parental support are significant and negative correlated with suicide ideation for Asian adolescents. Interestingly, the factor that exposure to friends' suicide behavior is negatively correlated with suicide ideation for Asian adolescents, however, not significant, while exposure to suicidal behaviors of whites is positively correlated with suicide ideation for the whites. Talking to friends with problems is positively related to suicidal ideation for both Asians and Whites. However, the correlation is significant for Asian adolescents. It may due to the social comparison process. The upward comparison would make Asian feel worse and think about suicide. Educational satisfaction is significant and positively correlated with suicide ideation for White adolescents while it is not for Asian adolescents. Gender is significantly correlated with suicide ideation for Asian adolescents. Female Asian adolescents are more likely to think about suicide.

For suicide attempt, it can be concluded from Table 4.3 and 4.4 that exposure to friends' suicidal behaviors is significant and positively correlated with suicide attempt for both Asians and the Whites. However, exposure to family members' suicidal behavior is negatively correlated with suicide attempt for Asian adolescents while it is not significant for White adolescents. Religion affiliation has significantly negative correlation with

suicide attempt for both White and Asian Adolescents which is consistent with Durkheim's theory that religion has an integrative function. Father support is significant and negatively correlated with suicide attempt for both Asian and White adolescents while mother support is only significant and negatively correlated with suicide attempt for Asian adolescents. These findings probably reflect the stronger role of the father as a socialization agent for adolescents compared to mother. As expected, money earned during non-summer is significant and negatively correlated with suicide attempt while money earned during summer is significant and positively correlated with suicide attempt for Asian adolescents. Education satisfaction is significant and negatively correlated with suicide attempt for both Whites and Asian adolescents. It is noteworthy for Asian adolescents that talking to male friends with problems is significant and negatively correlated with their suicide attempt while talking to female friends with problems is significant and positively correlated with suicide attempt. One reasonable explanation is that Asian culture more focus on person's appearance. Girls are more likely to compare their clothes, shoes, beauty products and so on. So talking to female friends will promote the social comparison and make them feel worse.

Table 4.1 Correlation Matrix of Suicide ideation. The White Adolescents. Wave 1, 1994.

	1	2	3	4	5	6	8	9	10	11	12	13
Suicide Ideation	1.00											
Exposure to Suicidal behaviors (Friends)	.23**	1.00										
Exposure to Suicidal behaviors (Family)	.09	.19**	1.00									
Religion Affiliation	.03	.03	-.04	1.00								
Educational Satisfaction	-.21**	.11*	.06	-.02	1.00							
Mother Support	-.15**	-.09	-.07	-.04	-.11*	1.00						
Father Support	-.18**	-.07	-.12*	.00	-.15**	.47**	1.00					
Talking to Male Friends about Problems	.10	.09	.06	-.02	.05	-.02	-.07	1.00				
Talking to Female Friends about Problems	.09	.12*	.05	.04	.00	-.02	-.03	.35**	1.00			
Money Earned Non-summer	.01	-.03	.04	-.06	.10	-.02	-.08	.08	.05	1.00		
Money Earned Summer	-.02	-.04	.01	-.01	.10	-.02	-.02	.10	.07	.68**	1.00	
Gender	.09	.16*	.08	.02	.04	-.06	-.03	.17**	.31**	-.12*	-.16**	1.00
Age	-.04	.04	.03	-.01	-.11*	.03	.07	-.17**	-.13*	-.42**	-.48**	.06

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 4.2 Correlation Matrix of Suicide ideation. The Asian Adolescents. Wave 1, 1994.

	1	2	3	4	5	6	8	9	10	11	12	13
Suicide Ideation	1.00											
Exposure to Suicidal behaviors (Friends)	-.04	1.00										
Exposure to Suicidal behaviors (Family)	.13*	-.09	1.00									
Religion Affiliation	-.39**	.12*	-.27**	1.00								
Educational Satisfaction	-.06	.12*	-.12*	-.17**	1.00							
Mother Support	-.34**	0.06	.07	.28**	-.22**	1.00						
Father Support	-.38**	-.05	.07	.46**	-.24**	.65**	1.00					
Talking to Male Friends about Problems	.13*	.05	-.18**	-.06	.20**	-.09	-.22**	1.00				
Talking to Female Friends about Problems	.20**	-.05	.00	-.11*	.13*	-.08	-.02	.22**	1.00			
Money Earned Non summer	-.16**	-.16**	.05	.05	.11*	.12*	.15*	.02	-.05	1.00		
Money Earned Summer	-.03	-.08	.12*	.06	.33**	-.03	-.04	.08	.20**	.66**	1.00	
Gender	.11*	-.05	-.19**	.04	.04	-.17**	-.02	.22**	.12*	-.13*	-.09	1.00
Age	-.02	.37**	-.03	.18**	-.20**	.11*	.03	-.15*	-.18**	-.39**	-.49**	-.08

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 4.3 Correlation Matrix of Suicide Attempt, The White Adolescents, Wave 1, 1994.

	1	2	3	4	5	6	8	9	10	11	12	13
Suicide Attempt	1.00											
Exposure to Suicidal behaviors (Friends)	.12*	1.00										
Exposure to Suicidal behaviors (Family)	.05	.21**	1.00									
Religion Affiliation	-.11*	.09	-.12*	1.00								
Educational Satisfaction	-.16**	.13*	-.03	.02	1.00							
Mother Support	-.08	-.16**	-.20**	-.19**	-.10*	1.00						
Father Support	-.12*	.02	-.28**	-.09	-.06	.55**	1.00					
Talking to Male Friends about Problems	.10*	-.02	.06	-.06	-.07	.02	-.07	1.00				
Talking to Female Friends about Problems	.03	-.01	.00	-.03	-.08	.01	.00	.36**	1.00			
Money Earned Non summer	-.00	-.02	.10*	.03	.07	-.08	-.19**	.03	.12*	1.00		
Money Earned Summer	-.06	-.10*	.02	.00	.17**	-.12*	-.08	-.02	.11*	.57**	1.00	
Gender	.15**	.24**	-.01	.02	-.05	-.10*	-.08	.10*	.19**	.01	-.13*	1.00
Age	.06	.04	.12*	-.11*	-.21**	.07	-.01	-.07	-.08	-.44**	-.45**	.11*

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed)



Table 4.4 Correlation Matrix of Suicide Attempt. The Asian Adolescents. Wave 1, 1994.

	1	2	3	4	5	6	8	9	10	11	12	13
Suicide Attempt	1.00											
Exposure to Suicidal behaviors (Friends)	.31**	1.00										
Exposure to Suicidal behaviors (Family)	-.18**	-.12*	1.00									
Religion Affiliation	-.21**	.12*	-.14*	1.00								
Educational Satisfaction	-.54**	.51*	-.38**	-.24**	1.00							
Mother Support	-.28**	-.08	-.18*	.13*	-.55*	1.00						
Father Support	-.41**	-.20**	.21**	.41**	-.61**	.58**	1.00					
Talking to Male Friends about Problems	-.15*	-.10*	-.37**	-.09	-.09	.02	-.01	1.00				
Talking to Female Friends about Problems	.41**	.28**	-.43**	.47**	.54**	-.41**	-.09	.16**	1.00			
Money Earned Non summer	-.23**	-.22**	.17**	.44**	.19**	.20**	.25**	.08	.13*	1.00		
Money Earned Summer	.17*	.12*	.02	.20**	.30**	-.08*	-.21**	-.07	.34**	.77**	1.00	
Gender	.07	-.10*	-.37**	-.09	-.07	-.23*	.17**	.35*	.16**	-.49**	-.48*	1.00
Age	-.09	.34**	.14*	.25**	.00	.25**	-.07	.42**	.10*	.09	-.07	-.39**

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

At wave 3, when the adolescents became young adults, something changed. As shown in Table 4.5 and Table 4.6 below, exposure to friends' suicidal behaviors is still significant and positively correlated with Asians while there is a significant negative correlation for White young adults. We can understand this point from the cultural background. Asians are more likely to hold a collectivism spirit while other races such as Whites are more likely to hold an individualism spirit. Thus, Asians are more likely to imitate their peers while the Whites are inclined to be themselves and are less likely to be impacted by others. Both father support and mother support are not significantly correlated with suicide ideation for Asian young adults while father support is significant and negatively correlated with suicide ideation for the Whites. Religion affiliation is significant and negatively correlated with suicide ideation for both Whites and Asian young adults. As expected, age is significant and positively correlated with suicide ideation for both races. Contrary to wave 1, there is a significant positive correlation between being Asian males and suicide ideation at this point in time.

The correlations for suicide attempt are displayed in Table 4.7 and Table 4.8. Exposure to suicide attempt is significant and positively correlated with suicide attempt for both Asian and White young adults. Religion affiliation is still significant and negatively correlated with suicide attempt for Asian young adults but not for White young adult. Education level is significant and negatively correlated with suicide attempt for Asians while it has the opposite correlation for the Whites. Marital status is significant and positively correlated with suicide attempt for Asian young adults. Mother support and

father support are significant and negatively correlated with suicide attempt for White young adults to attempt suicide while they are not significantly correlated for Asian young adults. And As expected, females are more likely to attempt suicide for Asian and White young adult.

### ***Summary of Major Correlation Results by Race and Year***

For suicide ideation at wave 1, exposure to suicidal behaviors of friends has a significantly positive correlation with suicide ideation for the White adolescents while exposure to suicidal behaviors of family has a significantly positive correlation with suicide ideation for the Asian adolescents. Religion affiliation has a strong correlation with suicide ideation for Asian adolescents while it is not for the White adolescents. Education satisfaction has a significantly negative correlation with suicide ideation for the Whites adolescents while it has no significant correlation with suicide ideation for the Asian adolescents. Both mother support and father support have significantly negative correlation with suicide ideation for the White and Asian adolescents. However, the correlation is much stronger for the Asian adolescents<sup>1</sup> ( $z=3.58$ ,  $p<.01$ ). For the suicide attempt at wave 1, there is a mixed picture concerning the exposure to suicidal behavior. Exposure to suicidal behavior of friends has a significantly positive correlation with suicide attempt for the Whites adolescents while exposure to suicidal behavior of family does not have a significant correlation with suicide attempt for this group. However,

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<sup>1</sup> When comparing the differences between two correlation coefficients, z-score test are used to examine whether the differences are significant or not.

exposure to suicidal behavior of family has a significantly negative correlation with suicide attempt for the Asian adolescent while exposure to suicidal behavior of friends has a stronger positive correlation with suicide attempt for this group compared to the Whites adolescents. Religion affiliation has a significantly negative correlation for both the White and Asian adolescents. Education satisfaction has a much stronger negative correlation with suicide attempt for the Asian adolescents compared to the White adolescents ( $z=4.17$ ,  $p<.01$ ). Both mother support and father support have significantly negative correlation with suicide attempt for the Asian adolescents while only father support has a significantly negative correlation with suicide attempt for the White adolescents.

For suicide ideation at wave 3, exposure to suicidal behavior of friends has a significantly negative correlation with suicide ideation for the Whites young adults while it has a significantly positive correlation with suicide ideation for the Asian young adults. Religion affiliation has a significantly negative correlation with suicide ideation for both White and Asian young adults while the correlation is much stronger for the Whites ( $z=2.13$ ,  $p<.05$ ). Both father support and mother support do not have significant correlations with suicide ideation for the Asian young adults while father support has significantly negative correlation with suicide ideation for the White young adults. For suicide attempt at wave 3, exposure to suicidal behavior of friends has significantly positive correlation with suicide attempt for both White and Asian young adults while exposure to suicidal behavior of family has significantly positive correlation with suicide

attempt only for the White young adults. Religion affiliation has a significantly negative correlation with suicide attempt only for the Asian young adults. Level of education completed has a positive correlation with suicide attempt for the Whites young adults while it is in the opposite direction for the Asian young adults.

Basically, exposure to suicide behavior of family and parental support are less significant at wave 3, eight years later, as the adolescents grew up. At this time, family is less important compared to the peer group. As Durkheim predicted, religion affiliation does serve as a buffer for suicide ideation and suicide attempt.

These correlation results confirm the hypotheses more rather than falsify them.

Table 4.5 Correlation Matrix of Suicide Ideation. The White Young Adults, Wave 3, 2002

	1	2	3	4	5	6	7	8	9	10
Suicide Ideation	1.00									
Exposure to Suicidal Behaviors (Friends)	-.12*	1.00								
Religion Affiliation	-.27**	-.32**	1.00							
Mother Support	-.05	-.05	-.14*	1.00						
Father Support	-.27**	.02	.14*	.21**	1.00					
Talking to the most important friend with Problems	.31**	-.44**	.12*	.15*	-.30**	1.00				
Education	.01	.35**	-.48**	.18**	.24**	-.15*	1.00			
Economic Status	.05	.05	.19**	-.15*	-.05	-.20**	-.31**	10.00		
Gender	.02	.36**	-.25**	-.18**	-.40**	-.29**	.18**	-.33**	1.00	
Age	.32**	.09	-.18**	.09	.02	.44**	.08	-.38**	.02	1.00

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 4.6 Correlation Matrix of Suicide Ideation, The Asian Young Adults, Wave 3, 2002

	1	2	3	4	5	6	7	8	9	10
Suicide Ideation	1.00									
Exposure to Suicidal Behavior (Friends)	.39**	1.00								
Exposure to Suicidal Behavior (Family)	-.02	-.02	1.00							
Religion Affiliation	-.10*	-.08	-.06	1.00						
Mother Support	.05	-.09	-.06	-.16**	1.00					
Father Support	.01	-.13*	-.09	-.03	.50**	1.00				
Education	-.09	-.08	.14*	.04	-.04	-.06	1.00			
Marital Status	-.05	-.04	-.03	.07	-.06	-.19**	-.04	1.00		
Gender	-.18**	-.14*	.12*	-.11*	-.01	.02	.19**	-.09	1.00	
Age	.28**	.21**	-.06	-.01	.06	.04	-.36**	-.16**	-.20**	1.00

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Due to the sample size, some variables are dropped here.

Table 4.7 Correlation Matrix of Suicide Attempt. The White Young Adults, Wave 3, 2002

	1	2	3	4	5	6	7	8	9	10
Suicide Attempt	1.00									
Exposure to Suicidal Behavior (Friends)	.27**	1.00								
Exposure to Suicidal Behavior (Family)	.22**	.54**	1.00							
Religion Affiliation	-.05	-.35**	-.26**	1.00						
Mother Support	-.23**	.26**	.25**	.16**	1.00					
Father Support	-.21**	-.35**	-.28**	.04	.23**	1.00				
Education	.34**	.56**	.48**	.04	.27**	-.02	1.00			
Talking to the most important friend with Problems	-.11*	-.75**	-.57**	.46**	.15*	.36**	-.13*	1.00		
Gender	.32**	-.35**	-.30**	.12*	-.09	.42**	.50**	.64**	1.00	
Age	-.11*	-.24**	-.27**	-.73**	-.50**	.08	-.13*	-.07	.28**	1.00

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).



Table 4.8 Correlation Matrix of Suicide Attempt, The Asian Young Adults, Wave 3, 2002

	1	2	3	4	5	6	7
Suicide Attempt	1.00						
Exposure to Suicidal Behaviors (Friends)	.25**	1.00					
Religion Affiliation	-.38**	-.38**	1.00				
Education	-.39**	-.45**	.52**	1.00			
Marital Status	.27**	.65**	-.38**	-.49**	1.00		
Gender	.39**	.15*	.09	-.20**	.49**	1.00	
Age	-.37**	.05	.21**	-.34**	-.37**	-.21**	1.00

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Due to the sample size, some variables are dropped here.

***Regression Results for Total Sample at Wave I***

Table 4.9 displays the multiple regression results of the predictors of adolescents' suicidal ideation. Asian background, education satisfaction, mother support, father support, exposure to friends' suicide attempt and talking to male friends with problems are all significant predictors of suicide ideation although talking to female friends with problems, exposure to families' suicide attempt are not significant predictors.  $R^2$  is equal to 0.115 which means only 11.5% of the variance is explained in suicide ideation by predictors in table 4.9. The happier the adolescents are at school, the less likely they think about suicide. Education satisfaction measures adolescents' happiness at school and indicates that the school environment is very important to the psychological well-being of young adolescents. As exposure to friends' suicide behaviors increases, thinking about suicide significantly increases. The discussions with them as to the factors that led to their emotional distress centered mainly on parental, family and community-related oppressions. Inescapable external factors including pressures from an active media, served to exacerbate their traumatic physical and psychological experiences (Bhardwaj, 2001).

Table 4.10 displays the multiple regression results of the predictors of adolescents' suicide attempt. For the total sample, religion affiliation and education satisfaction are the only significant predictors of adolescents' suicide attempt. Religion may serve an integrative effect as Durkheim predicted. It is noteworthy that education satisfaction is a significant predictor for both adolescents' suicide ideation and suicide attempt. This

finding is consistent with Hirschi's prediction. He argued that between the conventional family and the conventional world of work lies in the school, an eminently conventional institution. Insofar, as this institution is able to command his attachment, involvement, and commitment, the adolescent is presumably able to move from childhood to adulthood with a minimum of delinquent acts (Hirschi, [1969] 2002). However, these predictions explain only 9 percent of the variance in suicide attempt. These same predictors explain less variance in suicide attempt compare to suicide ideation.

### ***Logit Analysis for Asian Population at Wave 1***

Table 4.11 shows logit analysis of suicide ideation for Asian adolescents at wave 1. Logit analysis is preferred because the dependent variable is highly skewed with most respondents not thinking about suicide. Exposure to family members' suicidal behaviors is significant predictors of Asian adolescents' suicide ideation. This finding suggests that those adolescents who are exposure to family suicidal behavior are more likely to think about suicide. Exposure to family members' suicidal behavior is critical for this young age group because of the identity and belief in family. Education satisfaction is a negative predictor of Asian adolescents' suicide ideation. As satisfaction with education increases, thinking about suicide decreases. From these we can get that how important being happy at school is for adolescents, especially for Asian adolescents. School not only can have a control on adolescents' delinquent behaviors, but also has integrative function which are consistent with Durkheim and Hirschi's theories.

Table 4.12 displays suicide attempt among Asian adolescents. Interestingly, education satisfaction is the only significant predictor of suicide attempt and suggests that as education satisfaction increases, suicide attempt decreased. This finding indicates that social relations at school and the school environment are critical to young Asian adolescents' well-being.

Eighteen percent and twenty percent of the variance in suicide ideation and suicide attempt respectively were explained by these predictors for Asian adolescents which are almost as twice as those for the total sample.

Table 4.9 Regression Coefficient Predicting Suicide Ideation, Total Sample Wave 1,

1994

	Regression Coefficients			
	B	S.E.	T-statistics	Probability
Gender	.020	.013	1.529	.127
Age	-.001	.005	-.262	.793
Whites <sup>2</sup>	.025	.015	1.719	.086*
Asians	.062	.030	2.038	.042**
Marital Status	-.023	.121	-.192	.848
Educational Satisfaction	-.041	-.006	-7.375	.000***
Mother Support	-.063	.015	-4.107	.000***
Father Support	-.042	.011	-3.982	.000***
Talking to Male Friends with Problems	.033	.013	2.585	.010*
Exposure to Suicidal Behaviors (Friends)	.193	.016	11.718	.000***
Constant	.545	.418	1.304	.193

R<sup>2</sup>= .115

\*\*\*p≤.01    \*\*p≤.05    \*p≤.10

<sup>2</sup> Whites and Asians are measured by two different questions. Respondents were asked "are you White?" and "are you Asian". 0 indicates no while 1 indicates yes.

Table 4.10 Regression Coefficient Predicting Suicide Attempt, Total Sample, Wave 1,

1994

	Regression Coefficients		T-statistics	Probability
	B	S.E.		
Gender	.113	.099	1.149	.252
Age	.059	.041	1.437	.152
Whites	.116	.122	.946	.345
Asian	.259	.200	1.291	.198
Marital Status	-.472	.600	-.786	.433
Religion	-.014	.005	-2.699	.007***
Affiliation				
Educational	-.109	-.036	-2.991	.003***
Satisfaction				
Mother	-.102	.080	-1.288	.199
Support				
Father Support	.034	.060	.563	.574
Talking to	-.015	.102	-.146	.884
Male Friends				
with Problems				
Talking to	.021	.109	.196	.845
Female Friends				
with Problems				
Exposure to	.134	.096	1.388	.166
Suicidal				
Behaviors				
(Friends)				
Exposure to	.219	.170	1.285	.200
Suicidal				
Behaviors				
(Family)				
Constant	-4.422	3.233	-1.368	.172

R<sup>2</sup>= .092

\*\*\*p≤.01

\*\*p≤.05

\*p≤.10

Table 4.11 Logit Coefficient Predicting Suicide Ideation Among Asian Adolescents, Wave

1, 1994

Logit Coefficients				
	B	S.E.	T-statistics	Probability
Gender	.384	.484	.792	.430
Age	.186	.139	1.342	.182
Religion	-.037	.024	-1.516	.132
Affiliation				
Educational	-.192	.066	2.048	.091*
Satisfaction				
Mother	-.038	.410	-.092	.927
Support				
Father Support	.454	.286	1.587	.115
Talking to	.696	.491	1.419	.158
Male Friends				
with Problems				
Talking to	.613	.549	1.117	.266
Female Friends				
with Problems				
Exposure to	.418	.609	.686	.494
Suicidal				
Behavior				
(Friends)				
Exposure to	3.349	1.203	2.785	.006***
Suicidal				
Behaviors				
(Family)				
Constant	-15.503	10.875	-1.426	.156

Log Likelihood= -63.222

Pseudo R<sup>2</sup>= .181

\*\*\*p≤.01

\*\*p≤.05

\*p≤.10

Table 4.12 Logit Coefficient Predicting on Suicide Attempt Among Asian Adolescents,

Wave 1, 1994

Logit Coefficients				
	B	S.E.	T-statistics	Probability
Gender	2.326	1.853	1.255	.225
Age	-.018	.442	-.040	.968
Religion Affiliation	-.121	.096	-1.265	.221
Educational Satisfaction	-.316	-.012	-2.06	.087*
Mother Support	-1.171	1.109	-1.056	.304
Father Support Talking to Male Friends with Problems	-.907	-.981	-.925	.367
Talking to Female Friends with Problems	-3.066	2.097	-1.462	.160
Talking to Female Friends with Problems	19.728	632.847	.031	.975
Exposure to Suicidal Behavior (Friends)	-.783	2.228	-.351	.729
Exposure to Suicidal Behaviors (Family)	3.379	2.838	1.191	.248
Constant	-20.457	633.803	-.032	.975

Log Likelihood= -59.342      Pseudo R<sup>2</sup>= .201

\*\*\*p≤.01      \*\*p≤.05      \*p≤.10



***Regression Results for Total Sample at Wave III***

Table 4.13 and Table 4.14 are the regression results among young adults from wave 3, 2002, eight years later. As shown in Table 4.13, for suicidal ideation, exposure to family and friends' suicidal behavior become positively related to young adults' suicide ideation. These findings indicate that exposure to family and friends' suicidal behavior increases thinking about suicide among adolescents. Perhaps there are important bonds and adolescents are more likely to repeat the behavior of close others because of identification. With the increase of age, young adults are more likely to think about suicide. Father support has a significant negative effect on suicide ideation while mother support does not. The more support the father provides, the less the child thinks about suicide. This finding probably reflects the strong role of the father as a socialization agent of discipline and authority compared to mother. However, only 8 percent of variance in suicide ideation is explained by these predictors.

For suicide attempt shown in Table 4.14, marital status is a significant predictor. Young adults who are married are more likely to attempt suicide which is contrary to Durkheim's prediction. One reasonable explanation is that young adults are not mature enough to solve their emotional conflicts and marital problems. Thus, when they meet problems in their marriage they can't handle them properly. They resort to an extreme method, attempt suicide. Similarly, exposure to family member's suicide behavior is positively related to young adults' suicide attempt as it was with suicide ideation. This finding suggests that family context has a significant impact on the child. These

predictors explain 9 percent of the variance in suicide attempt.

### ***Logit Analysis for Asian Population at Wave III***

If the analyses just focus on Asian young adults in Table 4.15, it can be argued that exposure to friends and family's suicidal behaviors have significant positive effects on Asian young adults' suicide ideation. It is clear that the Asian population share the same predictors as the total sample. That is, exposure to suicidal behavior of family and friends are significant to their thinking about suicide. In addition, age is also a significant predictor for Asian youth, and suggests that as age increases, thinking about suicide increases. However, it is important to note that the variance explained (pseudo  $R^2=.54$ ) in suicide ideation is 54 percent for Asian youth compared to 8 percent for the total population. As Durkheim's family integration predicted, family stability are associated with lower suicide rates (Durkheim, [1897] 1951). Inversely, insufficient social integration enhances individualism and encourages egoistic suicide while insufficient social regulation encourages anomic suicide. Exposure to family and friends suicidal behavior make Asian young adults at a state of less integration and regulation in United States compared to young White young adults who feel more belongings in U.S. society. Thus, the social cultural context of family and friends are more important for the psychological protection of Asian youth. One reasonable explanation for the  $R^2$  is that suicide ideation and suicide attempt at wave 1 are not included in wave 3 due to the sample size, the effects of age and exposure to suicidal behavior on suicide ideation for

Asian young adults may be inflated.

Unfortunately for suicide attempt, the analyses were dropped. Only one respondent actually attempt suicide once which is meaningless to get a general conclusion.

Table 4.13 Regression Coefficient Predicting Suicide Ideation , Total Sample, Wave 3,

2002

	Regression Coefficients		T-statistic	Probability
	B	S.E.		
Gender	.017	.040	.419	.676
Age	.211	.073	2.904	.004**
Whites	.015	.042	.348	.729
Asian	-.043	.084	-.506	.614
Religion Affiliation	-.005	.006	-.862	.390
Level of Level of Education	.001	.012	.111	.912
Mother Support	-.015	-.164	-.094	.925
Father Support	-.362	-.144	-2.519	.012**
Exposure to Suicidal Behaviors (Friends)	.961	.305	3.157	.002**
Exposure to Suicidal Behaviors (Family)	1.098	.430	2.555	.011**
Economic Status	-.009	.014	-.624	.533
Marital Status	-.041	.089	-.463	.644
Constant	-17.388	22.745	-.765	.446

R<sup>2</sup>= .079

\*\*\*p≤.01    \*\*p≤.05    \*p≤.10

Table 4.14 Regression Coefficient Predicting Suicide Attempt , Total Sample, Wave 3,

2002

	Regression Coefficients		T-statistic	Probability
	B	S.E.		
Gender	.150	.137	1.099	.275
Age	-.046	.043	-1.070	.288
Whites	.075	.185	.408	.683
Asian	-.023	.417	-.056	.956
Religion	.013	.022	.597	.552
Affiliation				
Level of	.007	.044	.157	.875
Education				
Mother	-.102	.091	-1.119	.267
Support				
Father Support	.033	.080	.419	.676
Exposure to	-.070	.177	-.392	.696
Suicidal				
Behaviors				
(Friends)				
Exposure to	.234	.089	1.983	.091*
Suicidal				
Behaviors				
(Family)				
Marital Status	.276	.113	2.096	.086*
Constant	91.435	85.432	1.070	.288

$R^2 = .093$

\*\*\* $p \leq .01$

\*\* $p \leq .05$

\* $p \leq .10$

Table 4.15 Logit Coefficient Predicting on Suicide Ideation Among Asian Young Adults.Wave 3, 2002

	Logit Coefficients		T-statistics	Probability
	B	S.E.		
Gender	-9.209	72.491	-.127	.899
Age	4.391	2.272	2.028	.088*
Religion Affiliation	-.332	.401	-.829	.410
Level of Education	1.696	2.340	.725	.471
Mother Support	-.380	1.266	-.300	.765
Father Support	1.380	2.089	.661	.511
Exposure to Suicidal Behaviors (Friends)	3.092	1.306	2.064	.086*
Exposure to Suicidal Behaviors (Family)	3.785	1.604	2.215	.053*
Marital Status	2.488	227.920	.011	.991
Constant	-8,716.934	8,497.171	-1.026	.308

Log Likelihood = -5.880      Pseudo R<sup>2</sup> = .540

Due to the sample size, some variables are dropped here.

\*\*\*p≤.01      \*\*p≤.05      \*p≤.10

***Summary of Major Predictors by Race and Year***

At wave 1, education satisfaction has a significant effect on suicide ideation for both the total sample and the Asian adolescents. Exposure to suicidal behavior of family has a significant effect on suicide ideation for Asian adolescents while exposure to suicidal behavior of friends has a significant effect on suicide ideation for the total sample. Mother support and father support have significant effects on suicide ideation for the total sample while they do not have such effects on suicide ideation for the Asian adolescents. Religion affiliation has no effect on suicide ideation for both the total sample and the Asian adolescents. For suicide attempt, education satisfaction has a significant effect on suicide attempt for both the total sample and the Asian adolescents. Religion affiliation has a significant effect on suicide attempt for the total sample while it has no effect on suicide attempt for the Asian adolescents. Both mother support and father support have no effects on suicide attempt for the total sample and the Asian adolescents.

At wave 3, age has a significant effect on suicide ideation for both the total sample and the Asian young adults. Father support has a significant effect on suicide ideation for the total sample while both father support and mother support have no effects on suicide ideation for the Asian young adults. Both exposure to suicidal behavior of family and exposure to suicidal behavior of friends have significant effects on suicide ideation for the total sample and the Asian young adults. For suicide attempt, the analyses were dropped for the Asian young adults because only one respondent actually attempt suicide. However, for the total sample, exposure to suicide behavior of family has significant

effects on suicide attempt. Marital status does not serve as an anchor as Durkheim predicted for the total population.

These regression results are partially consistent with the correlation matrix. Mother support, father support and religion affiliation do not have significant effects on suicide ideation and suicide attempt for the Asian youth while exposure to suicidal behavior and education satisfaction have significant effects on suicide ideation and suicide attempt for the Asian youth. Thus, these regression results just partially confirm the hypotheses.

### ***Overall Results from the Two Different Ages for Asians***

Based on the analyses of wave 1 and wave 3, Asian adolescents' suicide ideation and suicide attempt are significantly influenced by exposure to the suicidal behavior of family and friends. Moreover, education satisfaction has a significant effect on suicide ideation and suicide attempt for Asian adolescents. However, with the increase of age, education satisfaction is not a significant predictor any more. Exposure to suicidal behavior and age are still significant and influence Asian young adults' suicide ideation. With the increase of age, Asian young adults are more likely to think about suicide.

These findings are consistent with some other literatures. It is said that suicide rates among Asian Americans, though low in youth, increase strikingly with age. However, for men, compared to European Americans, African Americans, and Native Americans, Asian American men still have the lowest overall suicide rates (Range, Leach, et al., 1999). There is a steady increase in suicide rates in Chinese and Japanese American groups as



age increases (Baker, 1994b). Asian women are at greatest risk in the old age range (85+ years), whereas Asian men are at greatest risk somewhat earlier (75-84 years) (Shiang et al., 1997).

Culture may contribute to the suicidal problems among Asian Americans. The three main religious (Confucianism, Buddhism, and Taoism) de-emphasize the individual as compared to the group (Ryan, 1985), and emphasize interdependence or interconnectedness (Shiang et al., 1997). The teachings of Confucius stress respect for elders, parents, and superiors. There are five significant pairs of relationships in Confucianism: father-son, husband-wife, older brother-younger brother, elder-youth, and ruler-subject (Ryan, 1985). A person attains individually within these relationships, and therefore an interpersonal conflict affects everyone else in the relationship (Ryan, 1985). The principles of Buddhism stress achieving Nirvana, state of balance and peace (Durkheim, [1897] 1951). In Buddhism, there is no self-ego, no reference to oneself. Instead, there is a triad ego made up of family, community, and country (Ryan, 1985). The tenets of Taoism stress becoming one with Tao, the first cause of the universe. Compassion, moderation, and humility make up the three jewels that should be developed (Ontario Consultants on Religious Tolerance, 1997).

It can be concluded from Asian Culture that once the balance, no matter family, or peace, or moderation was broken, people would come into a state of losing self-ego which is the beginning of delinquency. This is why education environment and exposure to suicidal behavior have significant effects on their suicide ideation and suicide attempt.

## **CHAPTER FIVE**

### **CONCLUSION AND DISCUSSION**

The present study findings indicate that Asian adolescents in grades 7-12 are more likely to think about suicide and attempt suicide compared to White adolescents which is not consistent with earlier studies. One study found that Asian American and Pacific Islander high school students were as likely as their black, Hispanic, and white counterparts to have attempted suicide (Suicide Prevention Resource Center 2010) .

However with the increase of age among Asian Adolescent, they are less likely to think about suicide and attempt suicide than their counterparts. The results are consistent with the report of The Centers for Disease Control and Prevention. They argued that between 1999 and 2004, in the Asian American and Pacific Islander population, the suicide rate was 5.4 per 100,000, approximately half the overall U.S. of 10.75 per 100,000.

But, a serious problem is that Asian women are more likely to think about suicide and attempt suicide than Asian men. Inequality between men and women that is rooted in the Asian culture may be the major reason for these phenomena. Taking China as an example, it is said that China is the only country where the females' suicide ratio outnumbers males'. Among the female suicides, the rural women compose a vast majority, 94.11% (Research Group of Rural Women, 2002), which is also 52.45% (Research Group of Rural Women, 2002) of the total number of female suicides in the world (Suicide

Prevention and Crisis Intervention Conference in China 2002). Asian women also discussed the idea of "containment" which means that suicide brings dishonor to the family and suicide is a shameful event. For fear of community reprisal and social disgrace many families tried to deny or simply cover up problems in the belief that if they are not visible to the outside world, then they cannot exist. Sadly for some women, this lack of communication and visible affection led them to seek intimacy outside of the home. The relationships sought with men were themselves abusive and hence the need for emotional nurture becomes a cyclical problem.

In regard to education satisfaction, Asian adolescents may view education as an indicator of acceptance and a source of social mobility in United States. Undoubtedly, school is a place for Asian adolescents to become acculturated in U.S. culture. Acculturation is a process of attitudinal and behavioral change undergone, willingly or unwillingly, by individuals who reside in multicultural societies or who come in contact with a new culture due to colonization, invasions, or other political changes (Mari'n 1992). Acculturation occurs across many dimensions of an individual's life, and is often multifaceted. Acculturation may affect suicide rates. For example, Mexican Americans residing in San Francisco, whether born in Mexico or in the U.S., had lower prevalence of suicide ideation than non-Hispanic Whites (Sorenson & Golding, 1988). Further, Mexican-born Mexican Americans had significantly lower rates of suicide ideation than U.S.-born Mexican Americans or U.S.-born non-Hispanic Whites (Sorenson & Golding, 1988). One conclusion from these differences is that individuals who are having difficulty

acculturating have a higher suicide rate than their peers who are acculturating at an average rate (Sorenson & Golding, 1988).

Exposure to suicidal behavior of family and friends will impact the psychological well-being of Asian youth which will increase the likelihood of suicide ideation and suicide attempt. As social control theory predicted, once the bonds between youth and others in their social network are broken, Asian youth will be out of social control which will lead them to commit delinquent activities. Also as Durkheim predicted, exposure to suicidal behavior of friends and family will bring crisis to lives for Asian youth, which could reduce social integration and lead to suicide ideation and suicide attempt.

Future studies could disaggregate the religion affiliation of Asian Americans by investigation of different types of religion affiliation, such as Protestant, Catholics, Christianity. This will extend the understandings that which religion affiliation provides more protection against suicide ideation and suicide attempt for Asian American youth.

Future studies also need to investigate the generation of the Asian American youth. Because different generations may have different degrees of acculturation and socialization in United States which will have effects on suicide ideation and suicide attempt for this group.

There are a number of possible preventive strategies involving high schools and colleges that could help Asian adolescents and young adults to cope with the culture changes they experience in United States. First, the educational institutions need to be aware of the fluctuating populations of young Asian people entering United States in high

school and college. This is especially true during times of increase, as occurred from the mid-1950s to the late 1970s and during the late 1990s. There often exists a lag time in society's response to such an increase in population, and this lag time needs to be shortened. For educational institutions, this means expanding enrollment facilities, dorms, faculties, and so forth at the beginning of the increase, not afterward. With an increased number of adolescents will come an increased number of psychologically vulnerable youth who are at risk—and this risk will be increased if more and more teenagers who want to go to college cannot do so because of space limitations. Two other issues with respect to educational institutions need to be considered: classes and counseling services. The content of the classes would be psychological and would include studies of affects, descriptions of depression and clinical clues about youthful suicide. These sources of information should be used to aid youth in labeling, understanding, and communicating their feelings. Educators might also consider making such a class available to or even mandatory for, parents of teenagers. With respect to counseling in the educational institutions, two issues emerge: the availability of counselors and the screening of students. More high school and college counselors are needed, and they need to be well trained in the areas of depression, domestic violence, and suicide symptoms across cultures. In addition, there is the possibility that an annual or biannual screening of adolescents might help in decreasing the suicide rates during periods of increased numbers of youth. Such screening might consist of a brief pencil-and-paper test assessing depression, suicidal ideation, domestic violence and so on (Holinger, Offer, Barter, & Bell,

1994).

The present study draws on Durkheim's predictions that suicide in modern societies is a result of individuals' lack of integration in society as well as the inability of society to regulate its members (Durkheim [1897] 1951) and a contemporary conceptualization of social control theory. For Asian Adolescents, school serves the integration function. In addition, exposure to suicidal behavior may leave young people vulnerable to negative role models and feeling helpless and hopeless about the future. This finding supports Durkheim's prediction that suicides tend to increase in times of crisis or rapid social change, attributing this increase to "disturbance of the collective order" which diminish social regulation (Durkheim, [1897] 1951).

There are some limitations of this study. First, the data do not allow this study to further disaggregate suicide ideation and suicide attempt by country of ancestral origin, nor do they permit this study to create country-of-origin-specific independent variables. Thus, although Asian as whole share important characteristics with respect to economic and labor market positions, as well as have cultural commonalities (e.g., language, religion, etc.), This study are unable to assess the degree to which these shared characteristics and experiences contribute to suicide ideation and suicide attempt of the various Asian groups.

Second, the findings of this study cannot be extended to suicide completion among adolescents. However, some scholars demonstrate that successful suicides and suicide attempts from two overlapping populations, such that the "risk factors and life processes

that lead to suicide are similarly evident for those making serious suicide attempts" (Beautrais 2001:844).

Third, due to the limited sample size, for wave 3 analyses, suicide ideation and suicide attempt at wave 1 cannot be included in the model to examine their continuous effects. Future study could investigate how suicide ideation and suicide attempt in early age affect adolescents' lives in later years.

Fourth, at wave 3, only one respondent actually attempt suicide once. The analysis for suicide attempt among Asian young adults was dropped at wave 3. Because there is no racial information at wave 2, wave 2 is not included in this study. The time interval between wave 1 and wave 3 is eight years which may be too much long. Thus, the predictors no longer have effects on the suicide ideation and suicide attempt for Asian youth. Future study could consider shortening the time interval between two different ages.

In conclusion, despite these limitations, these results indicate that education satisfaction reduces the probability of suicide attempt and suicide ideation among adolescents. This finding has implications for the social control theory. Education institution should establish a pleasant environment. Exposure to suicidal behavior is a factor that needs to be noticed. Social workers and other service care workers should provide services and resources to adolescents and young adults regardless of race to manage the stress in their lives.

The findings of the present study provide the groundwork for further theoretical and

empirical investigation of the multilevel context of youth suicidality. Specifically, this study call for further investigation into social context and social culture environment as important to the increase in suicide ideation and suicide attempt among Asian youth. Durkheim's assumption that social facts cannot be explained by psychological facts needs to be modified to reflect that social facts can be integrated into more complex explanations of individual-level phenomena for Asian youth.



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