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EVERYDAY RESILIENCE IN JAPANESE YOUTH:
INDIVIDUAL AND ECOLOGICAL
PROTECTIVE FACTORS AND RISK FACTORS

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has been accepted towards fulfillment
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# EVERYDAY RESILIENCE IN JAPANESE YOUTH: INDIVIDUAL AND ECOLOGICAL PROTECTIVE FACTORS AND RISK FACTORS

By

Julie Anne Laser Haddow

A DISSERTATION

Submitted to
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## ABSTRACT

EVERYDAY RESILIENCE IN JAPANESE YOUTH:
INDIVIDUAL AND ECOLOGICAL PROTECTIVE FACTORS AND RISK FACTORS

By

Julie Anne Laser Haddow

This dissertation investigated if the protective factors that have been theorized in North America, Europe, Australia and New Zealand as positive influences to developmental adaptations in the face of risk are similar to the protective factors found in Japan. Furthermore, risks that have been identified as particularly deleterious to Western populations were assessed to determine if they were present in Japan and had a similar negative impact on adolescent development. In addition, risks that had been viewed as a particular concern in the Japanese popular press were also measured. An ecological framework was used to assess the protective and risk factors. Finally, this study examined the relationship between both protective factors and risk factors and six outcome variables: internalizing behavior, delinquency, drug use, alcohol use, tobacco use, and sexual behavior. Data were collected from 802 post-secondary students, in Sapporo, Hokkaido, Japan. Fourteen of the twenty-six protective factors investigated were found to be predictive in the Japanese sample in at least one regression equation. Furthermore, twenty-four of the twenty-five investigated risk factors were found to be harmful to Japanese youth.

To Ariana, Orion, and Alan

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It has been said that it takes a village to raise a child. An analogous sentiment that is equally cogent is that it takes a large support network to write a dissertation. There have been many individuals that have guided my learning, given me insight, helped me to grow, and showed great friendship, kindness, and support.

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# Chapter I

## INTRODUCTION

This dissertation centers on the protective and risk factors that contribute to individual differences in youth. Historically, research focused primarily on issues of risk and vulnerability. Risk factors were researched in much of the same way as is done in the field of epidemiology, cataloging conditions or variables that either compromised health or social functioning for the developing individual (Jessor, Van Den Bos, Vanderryn, Costa, & Turbin, 1995). Many investigators created lists of risks factors and then quantified the number of risks for any given individual or subset of the population. The individual's composite number of risk factors indicated the likelihood of the individual's attainment of a negative outcome. An abbreviated list of these risk factors included: a history of physical or sexual abuse, marital discord, parental depression, lack of parent-child relationship, and living in an unsafe neighborhood (Butler, 1997; Garmezy, 1993; McMillan & Reed, 1994; Rutter, 1987; Seilhamer & Jacob, 1990; Werner, 1989; Werner, 1985). Regardless of the myriad of risks that were found to reduce positive developmental outcomes, the risk research was unable to explain the small but significant group of individuals that still flourished under the yoke of these risk factors. Continuing to look at risks did not shed light into why these individuals were successful; it only made their ability to cope with risks more perplexing.

By focusing on individual and environmental protective factors, a shift in the field was made, and the subject of resilience was created. Rutter (1987) explains "not only has

there been a shift in focus from vulnerability to resilience, but also from risk variables to the process of negotiating risks situations" (p.316). This shift allowed the investigator to view resiliency as one of the outcomes that could result from stressful life events. It also facilitated the study of the process of resiliency and not solely risks that increased vulnerability.

The concept of stress to the individual is also important to resilience. "Resilience refers to a dynamic process encompassing positive adaptation within the context of significant adversity. Implicit to this notion are two critical conditions: (1) exposure to significant threat or severe adversity, and (2) the achievement of positive adapt ion despite major assaults on the developmental process" (Luthar, Cicchetti & Becker, 2000, p. 543).

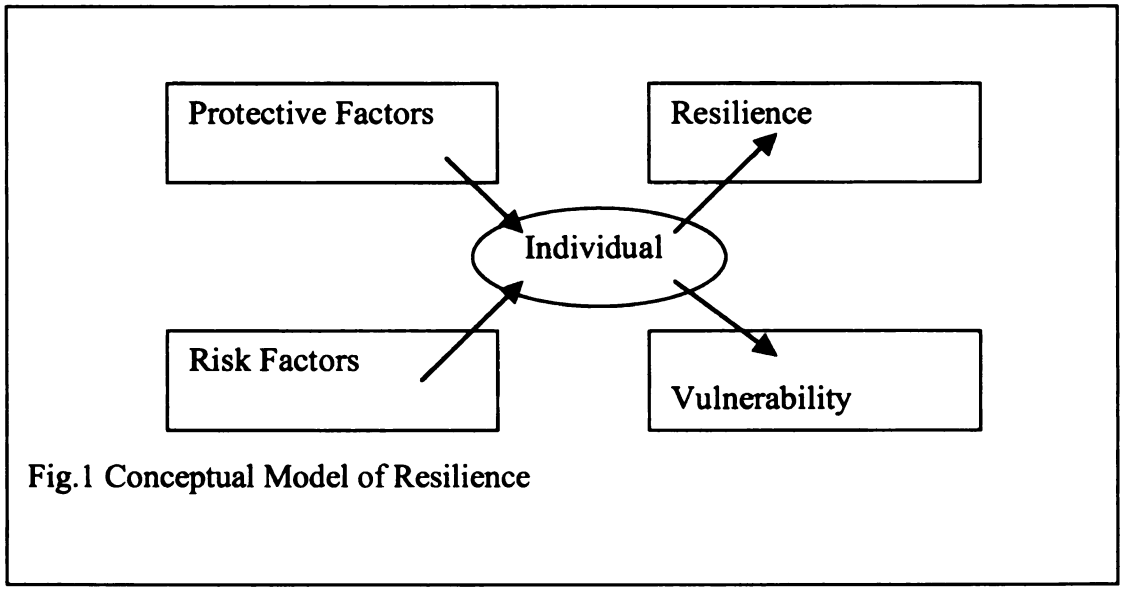

Fig.1 Conceptual Model of Resilience

In figure 1, the individual is both the recipient of protective factors and risk factors. These protective and risk factors may be internal or developmental characteristics or may be in the individual's environment. There are two possible outcomes: resilience or vulnerability.

Current research has concentrated on assessing protective and risk factors that can either promote or deter normal growth and development. There have been a large number of scholars who have added a great deal to the field of resilience. Among the noteworthy resilience researchers are Werner (1994, 1989a, 1989b, 1986, 1985) and Smith (Werner and Smith, 2001, 1998, 1992) who continue to conduct longitudinal research that began in Hawaii in 1955. Werner and Smith's ability to track this cohort, that began with careful scrutiny of prenatal and birth records and then periodic interviews and testing that continues into mid-life, has offered considerable insight into the subject of resilience.

Through the work of Werner and Smith, and the contributions of many other scholars, a large body of information has been gained regarding protective factors that the individual may possess or factors that are present in the developing person's environment that promote healthy development. Researchers from the United States, Europe, Australia, and New Zealand have identified similar protective factors in different populations. However, neither the subject of resiliency nor protective and risk factors has been investigated in Japan.

The Japanese are perceived as a very resilient people in their ability to revive their nation into a world power after being decimated at the close of the Second World War. Many researchers have investigated the educational systems, business practices, advanced technology, and mechanized industrialization that gives Japan so much notoriety. Within Japanese culture, there is high regard for individuals who persevere through difficult experiences. It is considered very noble to bear hardships with dignity.

However, there has been no systematic investigation of the individual and environmental protective factors that have undergirded such a seemingly resilient people.

## Purpose of the Study

The purpose of this study is to investigate whether or not the protective factors that have been posited by researchers in North America, Europe, Australia, and New Zealand as positive influences on adolescent developmental outcomes in the face of risk are similar to the protective factors found in Japan. This investigation focuses on whether these occidental protective factors identified in western studies exist in Japan, and if they similarly have a positive effect on adolescent development. Furthermore, risks that have been identified as particularly deleterious to Western populations are also assessed to determine if they are present in Japan and have a similar negative impact on adolescent development. In addition, risks that have been viewed as a particular concern in Japan are also measured. Finally, this study examines the relation between both protective factors and risk factors and six outcome variables: internalizing behavior, delinquency, drug use, alcohol use, tobacco use, and sexual behavior.

## Conceptual Framework

The research was guided by an ecological framework to evaluate the protective factors and risk factors. An ecological orientation proposes that development is influenced by characteristics of the individual interacting with characteristics of the environment over time (Bubolz & Sontag, 1993). The developing person continually interacts with her environment and her environment continually interacts with her (Barrows, 1995; Griffore & Phenice, 2001). Furthermore, this interaction is always affected by the passage of time. Bronfenbrenner (1979) speaks of the developing person

"as a growing dynamic entity that progressively moves into and restructures the milieu in which it resides" (p.21). There is a constant and reciprocal interplay between the person and the environment throughout the life span (Bronfenbrenner, 1989, 1986, 1979). Furthermore, the individual develops in a number of different contexts. The initial structure where development occurs is called the microsystem. The microsystem has been defined "as a pattern of activities, roles and interpersonal relations experienced by the developing person in a given face-to-face setting with particular physical and material features and containing other persons with distinctive characteristics of temperament, personality, and systems of belief" (Bronfenbrenner, 1989, p.227). The initial microsystem that the child inhabits is the home where the primary interaction is most often between the mother and the child. As the child grows, she develops in many other microsystems: the school, the neighborhood, and the peer network. In this research, the protective factors in the microsystem of the family, the school, the neighborhood, and the peer network are investigated. Likewise, the risk factors in the microsystem of the family, the school, the neighborhood, and the peer network are investigated.

## Research Questions

1. Do the protective factors that have been shown to be important to the development of North American, European, New Zealand, and Australian youth positively impact the development of Japanese youth?
    A. To what extent are "Western" protective factors present in the lives of Japanese youth?
    B. Which of these western protective factors are particularly important for predicting behavioral outcomes among Japanese youth?

2. Do the risk factors that have been shown to negatively impact the development of North American, European, New Zealand, and Australian youth predict behavioral outcomes among Japanese youth?
    A. To what extent are the previously explored "western" risk factors present in the lives of Japanese youth?
    B. How prevalent are the risk factors that have been identified as a concern by the Japanese, among Japanese youth?
3. Are there significant relationships between the protective and risk factors assessed and internalizing behavior among Japanese youth?
4. Are there significant relationships between the protective and risk factors assessed and delinquency among Japanese youth?
5. Are there significant relationships between the protective and risk factors assessed and drug, alcohol and tobacco use among Japanese youth?
6. Are there significant relationships between the protective and risk factors assessed and involvement in sexual activity among Japanese youth?

## Conceptual and Operational Definitions

In this section, conceptual and operational definitions for key terms used in the research are presented.

### *Protective Factors*

Protective factors are individual characteristics and environmental influences that exert a positive influence on the development of the individual particularly among individuals exposed to significant risk factors. For this study, the Haddow Ecological

Protective Factors for Young Adults (HEPFYA), was used to assess both individual and environmental protective factors (See Appendix A).

*Individual Protective Factors*

Individual protective factors are personal strengths in the social, emotional, cognitive, physical or moral domains that promote positive developmental outcomes. The HEPFYA (see Appendix A) was used to assess the following factors: autonomy, self-efficacy, the creation of a personal myth, optimism, sense of humor, easy temperament, physical beauty, moral development, mental flexibility, emotional intelligence, spirituality, and the ability to perceive social support.

*Environmental Protective Factors*

Environmental protective factors are the aspects of the people and the environments in which the developing person spends time that are believed to promote positive development among youth exposed to risk factors. The protective factors in the peer microsystem, neighborhood microsystem, school microsystem and family microsystem were assessed with the HEPFYA (see Appendix A). This included the following variables: partner relationship, social network, supportive friends, sense of community, collective efficacy, social capital, a sense of school belonging, a relationship with a school mentor, a sense of family belonging, a strong parental marriage, parents who impart values to their offspring, familial economic stability, paternal relationship, and maternal relationship.

*Risk Factors*

Risk factors are aspects of the environment or the person that are associated with problem outcomes in individuals. Risk factors were assessed using the Life Events

Survey for Japanese Youth (LESJY) (See Appendix B) and the Demographic Information (See appendix C). Examples of risk factors measured in this study include: history of physical illness, feelings of being undervalued due to gender, history of physical abuse, history of sexual abuse, confusion over sexual orientation, alcohol use, living in an unsafe neighborhood, being bullied at school, parental depression, witnessing domestic violence, personality differences with parents, parents who lack social support, parents who use alcohol, parents who are not aware of youth's activities, parents who are not available to the youth, parental favoritism of a sibling, increased frequency of moving, and living in a home that is too small.

*Japanese Risk Factors*

These risk factors have been identified in the Japanese popular press as topics of social concern. These risk factors include involvement in Enjo Kosai (school girl prostitution), having a mother who is involved in Terekura (telephone sex), having a father who frequents Fuzoku (brothels), and gambling. These Japanese risks are often sensationalized in Japanese newspapers; however, there are virtually no scientific studies of these social problems. The Japanese risk factors were measured by the LESJY (See Appendix B).

*Media Influences*

Media influences are macrosystemic influences that may be associated with problem outcomes in individuals. They include involvement in Hip Hop culture and increased television viewing of sex and violence. The media influences were assessed by the LESJY (See Appendix B).

## *Outcomes*

### *Internalizing Behavior*

Internalizing behavior involves feeling of sadness, loneliness, suicidal ideation and self-dislike. These problems may not be apparent to anyone but the individual who experiences them, in contrast to externalizing problems. Internalizing behavior was measured by the LESJY (See Appendix B).

### *Delinquency*

Delinquency outcomes include involvement with street gangs, the Japanese mafia "Yakuza", larceny, youth center placement or police involvement. Delinquency was measured by the LESJY (See Appendix B).

### *Drug use, alcohol use and tobacco use*

Drug, alcohol and tobacco use refers to the frequency that the individual consumes each substance. Alcohol use is the frequency of drinking beer, wine, sake or liquor. Drug use is measured by the frequency of using street drugs and prescription drugs for non-prescription use. Tobacco use is assessed by the frequency of smoking cigarettes. Drug, alcohol and tobacco use were measured by the LESJY (See Appendix B).

### *Sexual Activity*

Sexual activity refers to the number of sexual partners, age of first oral sex, and age of first sexual intercourse. Sexual activity was measured by the LESJY (See Appendix B).

## *Resilience*

Resilience is the process of positive developmental adaptation in the face of risk or stress. In this study, resilience refers to the absence of problem behaviors among youth exposed to significant risk factors. An assessment of resilience is based on variables assessed in the HEPFYA (see Appendix A) and LESJY (See Appendix B).

## Assumptions

1. The Japanese youth will be forthright when answering the questions.
2. It is possible to explore Japanese resiliency using measures that were based on western literature and research.

## Significance of the Research

Resiliency is an extremely important area of study. The ability to better understand the protective mechanism at work that aid in resilient outcomes is fundamental to improving functioning for all humans. Furthermore, the knowledge that has been gained thus far on the subject of resilience may be beneficial to better understand the people of Japan. Likewise, the aspects of resilience that are particular to Japan will be of interest both to the Japanese and to researchers and practitioners in other parts of the world. The investigation of resiliency in Japan has never been undertaken; this study represents an initial exploration into the protective and risk factors that are at work in that culture. Furthermore, Japanese social science research is still in its infancy due to insufficient funding and limited knowledge of social science research methods. Therefore, this study would also give the people of Japan some insight into the feelings and the thoughts of their youth.

## Overview of the Dissertation

In Chapter II, a review of literature on the subjects of resiliency, protective factors and risk factors is discussed. In Chapter III, the research methodology is discussed, which includes information about the sample, instrumentation, data collection procedures and data analysis. The results of the analysis are discussed in Chapter IV. Finally, Chapter V includes a discussion of the results, the limitations of this study and directions for future research.

Chapter II

# REVIEW OF LITERATURE

This chapter begins with an overall review of the resilience literature. It then proceeds to discuss protective and risk factors that are found in the research that have been incorporated in either the HEPFYA protective factors instrument, the LESJY risk factors instrument, or the demographic information questionnaire.

## Overview of Resilience

Werner and Smith (1992), who have been aforementioned as some of the great pioneers in the study of resilience, define the concept of resilience as, "Resilience and protective factors are the positive counterparts to both vulnerability, which denotes an individual's susceptibility to a disorder, and risk factors, which are biological or psychosocial hazards that increase the likelihood of a negative developmental outcome in a group of people" (p.3). Other resilience researchers have similar definitions; but each adds a slightly different focus to better illuminate and conceptualize the subject.

Rutter (1989, 1987), who also has a long and significant scholarship of resilience, believes that resilience is a dynamic process that allows an individual to adapt to a particular given situation. Rutter (1987) states, "It requires some form of intensification (vulnerability) or amelioration (protection) of the reaction to a factor that in ordinary circumstances leads to a maladaptive outcome" (p. 317). Rutter (1987) acknowledges that certain behaviors may be adaptive for a particular situation, but may put the

individual at greater risk in other circumstances. Therefore, a certain behavior in a particular context may afford survival at the present, but may be deleterious for future development.

Sameroff, another resilience expert, explains resilience as simply a matter of weighing the risk and the protective factors. Sameroff (2000) states, "the more the risk factors the worse the outcomes; the more protective factors, the better the outcomes" (p.20). Sameroff also discusses the contextual influences of the parents, family, neighborhood, and the culture to either promote or inhibit child development.

Garmezy, a resilience researcher from Minnesota, believes that the ability to "bounce back" by the individual is central to a conceptualization of resilience. Garmezy (1993) states that the central element of resilience "lies in the power of recovery and in the ability to return once again to those patterns of adaptation and competence that characterized the individual prior to the pre-stress period" (p.129). Similarly, Cicchetti, Toth and Rogosch (2000) discuss resilience as the process of "initiating their self-righting tendencies" (p. 409). Furthermore, Wang, Haertel and Walberg (1994) discuss the importance of resiliency to be an active event. It is the creation of strategies and the initiating of self-righting mechanisms that is important for understanding resiliency.

Garmezy (1985) sees three primary types of protective factors: personality factors, the nature of the early care giving environment, and supportive others. Richters and Martinez (1993) quote Garmezy and Masten that " positive outcomes in the face of multiple adversities typically are not randomly distributed; they tend to be related systematically to positive characteristics of families, communities and children

themselves" (p. 611). Garmezy has a strong belief in the influence of the context of the developing person in either improving or impeding healthy development.

To conceptualize resilience, a model was developed by Henderson and Milstein (1996), which was adapted from the earlier work of Richardson, Neiger, Jensen and Kumpfer (1990) that discusses four possible outcomes in response to stressful life experiences. The first possible outcome was called "reintegration with resiliency"; the child had survived and gained strength from the stressful life event. Through the experience, the child developed healthy coping mechanisms to deal with the disruption. These healthy coping mechanisms were then in the possession of the child to use in the future. The second possible outcome Henderson and Milstein called "homeostasis"; the child retreated to a safe place. The life disruption was not been a strengthening life experience, neither has it been a detrimental experience. The third possible outcome was reintegration with loss that was termed "maladaption". The child was negatively affected by the disruption. The child has decreased self-esteem and reduced healthy coping skill. The final and the most deleterious outcome was called "dysfunctional reintegration"; the child was severely affected by the disruption.

Henderson and Milstein posit that the child's reaction to the event and the path of reintegration for the child is determined by the child's individual and environmental protective factors. In that, an increased number of protective factors will create better outcomes for the child. Henderson and Milstein also believe that the passage of time can be ameliorative. The strength of these protective factors can determine the child's reaction to the disruption, as well as, how that disruption is reintegrated into the child's

view. The stressors, adversities or risks are buffered by individual and environmental protective factors.

The environment is always a contributing factor in the success or the failure of an individual. Scarr and McCarty (1983) remark that resilient youth are active participants in their own environment. The resilient adolescents' ability to make the most of the environment that they currently inhabit increases their ability to withstand the negative effects of the environment.

Kumpfer (1999), who also considers the environmental factors as important for resilience, created a framework that is based on Bronfenbrenner's ecological theory. It begins with the flow of stressors and challenges that impact the environmental context of the microsystem of the developing individual where there are both protective and risk factors present. The microsystem then impacts the transaction of the person with her environment. This in turn impacts internal resiliency factors that the individual possesses which include: cognitive, emotional, physical, spiritual, and behavioral factors. Finally, either adaptations that create resilient reintegration or maladaptive reintegration are created.

Luthar, Cicchetti and Becker (2000) reviewed the resiliency research literature and found that some researchers are now specifying resilience in a particular domain and not across all areas of the individual's life. This allows for the investigation of success in a particular sphere, which they delineated as educational resilience, emotional resilience, and behavioral resilience.

Interestingly, Luthar, Cicchetti and Becker's review of the literature also discussed that the criteria for labeling the adaptation as resilient was determined by the

magnitude of the traumatic experience. Depending on the incident, resilience can be interpreted as mere survival, maintenance of average functioning, or superior functioning. Luthar, Cicchetti and Becker strongly urge that future researchers operationalize specific criteria for establishing "successful adaptation" within each sample.

Furthermore, Luthar, Cicchetti and Becker (2000) posit that the perception of risk factors for the subject may be quite different than the perception of risk for the investigator. In that, the life circumstances the researcher defines as a risk factor may not be interpreted as a risk factor by the subject. Luthar, Cicchetti and Becker also state that there is a great deal of variance in daily competence for any subject. Individuals at high risk "rarely maintain consistent positive adjustments over a long period of time" (p.551). Resilience is not static and even the most resilient are prone to upward and downward adaptations.

Luthar, Cicchetti and Becker also advise that the generalizability of results can never extend past the population under investigation. The risk factors, protective factors, the interaction of those factors, along with the context and place in history are particular to each population. Furthermore, the importance of the social and cultural context of the protective factors needs to be taken into account (Gore & Eckenrode, 1996). The individual is always imbedded in a community and a cultural context that both considers some behaviors normative and important for development while trivializes other behaviors.

Furthermore, Yule (1992) posits that different protective factors are more salient at different stages of development. In infancy and childhood, Yule believes that personal characteristics are more important. These characteristics include being active,

affectionate, good-natured, and alert. However, in adolescence interpersonal factors seem to be more important. It is not only the possession of these particular protective factors that are important, but that the individual possesses these protective factors at the stage of development when they are needed.

## Protective Factors

In Frankel's (1963) seminal work, *Man's Search for Meaning*, he concludes that "we can predict an individual's future only within the large frame of a statistical survey referring to a whole group; the individual personality, however, remains essentially unpredictable. The basis for any predictions would be represented by biological, psychological or sociological conditions. Yet one of the main features of human existence is the capacity to rise above such conditions and transcend them" (p.207). Protective factors are the characteristics of the individual and the individual's environment that enable the individual to transcend the negative experiences.

Gore and Eckenrode (1996), who studied resilience, found that individual protective factors helped to account for individual differences to both environmental and biological risks. However, protective factors were often related to each other. Furthermore, the presence of certain protective factors determined the emergence of future protective factors (Gore & Eckenrode, 1996). Likewise, the issues of time and timing also are important to protective factors (Gore & Eckenrode, 1996). Like Yule (1992), they found that the age and the level of development across the domains of development were important in the ability for the protective factor to be salient for the individual.

However, there seems to be some protective factors that are particularly important and exert a major influence in edifying the individual in times of stress and difficulty. Some of these factors are internal to the individual, while other protective factors are characteristics of the microsystems that the individual inhabits.

### *Internal Protective Factors*

Many of the protective factors are beliefs, perceptions and traits that help the individual to right one self during times of turmoil or difficulty. The following internal protective factors are discussed in the resilience literature.

*Mental Flexibility and Cognitive Ability.* Greater intelligence is a protective factor that seems to increase adaptive outcomes. Higher IQ has been correlated to greater resilience while lower I.Q. has been correlated to greater risk (Bogenschneider, 1998; Emery & Forehand, 1996; Farrington, 1995; Garbarino, Dubrow, Kostelny & Pardo, 1992; Garmezy, 1993; Garber and Little, 1999; Gilvarry, 2000; Hawkins, Catalano and Miller, 1992; Kumpfer, 1999; Masten & Coatsworth, 1998; Rende & Plomin, 1993; Rutter, 1999, 1989; Skuse, 1984, Werner, 1994; Werner and Smith, 2001, 1982; White, Moffitt & Silva, 1989; Yule, 1993).

However, Luther and Ziegler (1992) found that cognitive ability alone did not predict more resilient outcomes. Young inner-city adolescents with high IQs had varied outcomes. The interaction of internal control with I.Q. was more predictive of resilient outcomes. Adolescents with high I.Q.s and a strong internal control were educationally resilient, while those youth with similar I.Q. levels but weak internal control were less educationally resilient and more likely to use their intellectual abilities in nonacademic pursuits, with sometimes negative repercussions. Similarly, Maughan, Pickles, Hagell,

Rutter and Yule (1996) found that although low cognitive ability put boys at risk for reading difficulties, it was not significantly related to later offending. Interestingly, it was poor school attendance that was predictive of later offending.

Mental flexibility, which involves creativity and the ability to make novel adaptations as the situation unfolds, has been found to be an important factor. Flexibility and originality to solve problems are important for resilient outcomes (Garbarino, Dubrow, Kostelny & Pardo, 1992; Garmezy, 1996; Kumpfer, 1999; Larson, 2000; Wang, Haertel & Walberg, 1994). Ngo and Malz (1998) found that Asian families that emphasized the individual's ability to be malleable to new challenges were more likely to believe that accomplishments could be achieved through effort and persistence.

Nevertheless, Sameroff's (2000) longitudinal study found that each risk factor that a child experienced reduced the child's I.Q. by 4 points (p.13). Sameroff found that 24% of the children who had experienced multiple risk factors had IQs below 85 as compared to 0% of children who had experienced no risk factors. However, Sameroff does not discuss whether they are most at risk because their IQ is low due to genetic or perinatal factors or that the accumulation of environmental risk factors decreases cognitive performance. Sameroff found that these IQ scores did not change significantly over time; there was a .72 correlation between intelligence scores at age 4 and age 13.

In the follow-up study of the long term effects of severe deprivation of the Romanian orphanage children (Morrison & Ellwood, 2000), it was found that intelligence as measured by IQ was at a lower level in the children that had been in the orphanages in comparison to those that lived in intact families. However, it was duration of stay in the orphanages that had a profound affect on their cognitive ability over the long-term. The

investigators theorized that this reduction of intelligence could be due to nutritional deprivation, affectional absence and genetic influences.

*Gender*. Many researchers have found girls to be more resilient than boys (Emery & Forehand, 1996; Kumpfer, 1999; Wang, Haertel & Walberg, 1994; Werner, 1994, 1985). Similarly, Rutter (1987) and Garcia-Coll, Lamberty, Jenkins, McAdoo, Crnic, Wasik and Garcia (1996) discuss that males are often at greater risk. Rutter (1987) believes that families protect female offspring by less punishment directed at females, less exposure to family discord, and closer monitoring. Interestingly, Werner (1994) finds that boys who were resilient were often the first-born. In contrast, Sameroff (2000) and Fergusson and Horwood (1999) found no difference between males and females regarding resilience.

*Physical Beauty*. Being attractive contributes to more resilient outcomes (Cowen, Wyman, Work, Kim, Fagen, & Magnus, 1997; Emery & Forehand, 1996; Masten & Coatsworth, 1998; Rutter, 1989). Similarly, Hartup (1996) found that children who were more attractive had more friends. Likewise, Garmezy (1996) posits that attractiveness to both peers and adults is important for resilience. Freud and Dann (1952), in their study of children of the Holocaust, believed that the children who were more successful were more handsome and appealing to adults and would use these traits to get their needs met.

Research has also been found that beliefs about physical attractiveness have also affected career paths. Ngo and Malz (1998) found that Asian students who believed themselves to be more attractive chose career paths in law, government or social sciences where they would interact more with the public and where they would have to have

greater verbal skills and social skills. Those who believed themselves to be less attractive chose professions in the hard sciences or engineering.

*Easy Temperament.* Easy temperament seems to increase resilient outcomes. Chess and Thomas (1996, 1992) articulate that the style in which children perform certain behaviors are indicative of their temperament. These styles of behavior are visible shortly after birth and are, at least in part, innate to the individual. However, certain styles of behavior either elicit positive or negative responses from individuals in their environment. Chess and Thomas discuss three particular types of temperamental style: difficult, slow to warm up, and easy. Children with a difficult temperament are characterized by negative responses to new stimuli, difficulty in adapting to change, prone to tantrums, eat and sleep in irregular patterns, and can not be easily soothed. Chess and Thomas found that children with difficult temperaments constituted 10% of their sample. Slow to warm up children were described as being withdrawn, having a low activity level, and a general wariness of new stimuli or changes. Chess and Thomas have found in their study that slow to warm up children comprise 15% of their sample. Children who possess an easy temperament are very adaptable to new situations and changes in foods, routines and people. Children with an easy temperament are characterized by a general cheerfulness of personality and a sunny disposition. Chess and Thomas found that 40% of the children that they investigated were children with an easy temperament.

Garmezy (1985, 1993) discussed temperament as one of the three determinants of resilient outcomes. For Garmezy, having an easy temperament is fundamental for resilient outcomes. Much research agrees that an easy temperament creates more

resilient outcomes (Emery & Forehand, 1996; Garcia-Coll, Lamberty, Jenkins, McAdoo, Crnic, Wasik & Garcia, 1996; Garbarino, Dubrow, Kostelny & Pardo, 1992; Gilvarry, 2000; Gore & Eckenrode, 1996; Henry, Caspi, Moffitt & Silva, 1996; Kumpfer, 1999; Masten & Coatsworth, 1998; McMillan & Reed, 1994; Wang, Haertel & Walberg, 1994; Werner, 1994; Werner & Smith, 2001). Werner (1994) stated that children who were "cuddly, affectionate and easy to deal with" were more resilient (p. 132). Rende and Plomin (1993) believe that an easy temperament can moderate environmental stressors.

*Sense of Humor.* A sense of humor is important to resilience (Emery & Forehand, 1996; Garbarino, Dubrow, Kostelny & Pardo, 1992; Kumpfer, 1999; Masten, 1986; McCubbin, McCubbin, Thompson & Thompson, 1998; Rutter, 1987; Wang, Haertel & Walberg, 1994). The ability to reduce tension and stress for oneself and for others is very important for resilience. Using humor as a way of coping is an important tool. Masten (1986) posits that humor and competence are correlated; children with a sense of humor were viewed by their peers as more popular, gregarious, happy, possessing leadership skills and creative ideas than those with less ability to be humorous. Similarly, teachers reported that children with a greater sense of humor were more attentive, cooperative, responsive and productive (Masten, 1986). A sense of humor engendered a great deal of positive regard from both peers and adults. Wang, Haertel and Walberg (1994) found a sense of humor helped to protect children and gain affection and support from adults in their environment. Interestingly, a sense of humor was not correlated with disruptive or aggressive behavior (Masten, 1986).

*Spirituality.* Spirituality has often been discussed as an important protective factor. Cole (1990) has found that many children, regardless of their exposure to

formalized religious education or a particular religious sect, have a spiritual sense that they turn to in times of need or loneliness. Cole (1990) discusses that many children find solace, companionship, direction, and strength in their relationship with God. Cole (1990) hypothesizes that this sense of spirituality is due to children's being on the quintessential pilgrimage. Children are on a great journey to adulthood where they are continually asking themselves what the future holds, what life means, and what their purpose is. The profundity of these questions and answers naturally also develops the spiritual self.

Similarly, Fowler (1981), in his treatise on the development of faith, believes that humans progress through stages of faith from infancy through adulthood. Fowler believes that faith for the adolescent "synthesizes values and information and provides a basis for identity and outlook" (p. 172).

Spirituality has been found to be a major predictor of resilience (Bogenschneider, 1998; Jessor, Van Den Bos, Vanderryn, Costa & Turbin, 1995; Kumpfer, 1999; Masten and Coatsworth, 1998; McCubbin, McCubbin, Thompson & Thompson, 1998; Ngo & Malz, 1998; Wang, Haertel & Walberg, 1994; Werner, 1994; Werner & Smith, 2001). Kumpfer (1999) states that spirituality gives the individual an "anchor". Wang, Haertel and Walberg (1994) found that a sense of spirituality gave the children a sense of hope for the future. Werner (1994) states that, " resilient children acquired a faith that their lives had meaning and that they had control over their fate" (p.132).

It is a belief in many formalized religions, Christianity, Buddhism, Judaism, and Islam, that the burdens or the obstacles individuals face give an opportunity for the individual to strengthen their relationship to God. Furthermore, it is believed that God

gives greater protection and solace in times of more intense difficulty. This proximity to God strengthens the individual's resolve to endure the hardship because they feel that they are not alone and that their suffering has some purpose.

Garbarino, Dubrow, Kostelny and Pardo (1992) found that children who were more successful at coping with the trauma of war had a spiritual belief. Likewise, Ngo and Malz (1998) found that many Asian-American students felt that their academic success was due to the importance that they placed on their spiritual beliefs, regardless of which religion, Buddhism, Christianity, Confucianism or Taoism, they professed.

*Optimism.* A sense of optimism has often been posited as an important protective factor. Seligman (1995, 1998) and Peterson (2000) see optimism as fundamental to positive development. Seligman (1998) believes that the individual's explanatory style is extremely important to how the event is perceived and remembered. Furthermore, hope determines one's outlook for the future. Lastly, personalization of the event determines one's belief that the unfolding events were fabricated by her/his own actions. For Seligman (1995, 1998) one's understanding of her/his explanatory style, hope and personalization of events creates either optimistic or pessimistic expectancies about the world and the future.

Gillham (2000), like Seligman (1995, 1998), believes that these expectancies about the future can predict future behavior. Expectations that the individual has power and can gain control lead to "persistence, coping, and resilience from depression and physical health problems" (p. 3). Peterson and Bishop (2000) discuss that the benefits of optimism may be a universal principle, but that in some environments, the message of hope for the future is stated in religious terms and not in the secular terms of optimism.

Cicchetti, Toth and Rogosch (2000) discuss that "positive future expectations for the self are a predictor of resilient functioning in highly stressed, disadvantaged youngsters" (p.412). Wang, Haertel and Walberg (1994) believe that resilient children operate with an optimistic attitude and value system. Furthermore, children who have realistic goals and are optimistic about the future are more resilient (Garber & Little, 1999; McMillan & Reed, 1994;Werner, 1994).

Myers (1990, 2000), who studies happiness, posits that happiness and optimism are highly correlated. Myers (2000) discusses that most individuals see themselves as very happy and believe themselves to be happier than others who are famous or wealthy. Kumpfer (1999) agrees that optimism and happiness about the future improve mental functioning. Buss (2000) believes that happiness is an evolutionary adaptation that it is always sought after, even though it may be ephemeral, because it makes the species continue to strive for happiness.

*Emotional Intelligence.* Emotional intelligence has been found to be a protective factor for resilient outcomes. Goleman (1995) has coined the term "emotional intelligence". He discusses emotional intelligence as the "ability to motivate oneself, and persist in the face of frustrations, to control impulses and delay gratification, to regulate one's mood and keep distress from distracting one's ability to think, and to empathize and to hope" (p. 34). Goleman posits that the successful individual is not the most intelligent individual, but the individual with the greatest emotional intelligence. There are five domains of emotional intelligence that Goleman has discussed: knowing one's emotion, managing emotions, motivating oneself, recognizing emotions in others, and handling relationships. Knowing one's emotions is a kin to self-awareness. Goleman

sees this as the keystone to emotional intelligence. The ability to monitor one's own feelings allows for greater insight and self-understanding, so that better decisions are made. Managing emotions is the ability to manage and not be undermined by unpleasant emotions. It is also the ability to self-soothe and to quickly regain composure after setbacks. Motivating oneself allows for greater productivity by being able to delay gratification, stay on task and pay attention. Recognizing emotions in others is empathy, the ability to recognize other's feelings and to understand others. Handling relationships is social competence, the ability to interact effectively with others.

Masten and Coatsworth (1998) discuss many of the protective characteristics that could also be termed emotional intelligence which include: self-regulation, self-control, socially appropriate conduct, and sociability. These similar characteristics are discussed as predicting resilient functioning: strong interpersonal skills, a capacity to be responsive to others, social competence and an internal locus of control orientation (Bogenschneider, 1998; Cicchetti, Toth & Rogosch, 2000; Cowen, Wyman, Work, Kim, Fagen, & Magnus, 1997; Emery & Forehand, 1996; Hawkins, Catalano & Miller, 1992; Novick, 1998; Rutter, 1989; Wang, Haertel & Walberg, 1994; Werner, 1994; Werner & Smith, 2001).

Furthermore, social competence extends to the ability to be competent in two or more cultures (Kumpfer, 1999). Resilience is also increased, especially in women, by having bi-gender social competence (Kumpfer, 1999; Werner, 1994). Females who can comfortably interact with both females and males are more resilient.

*Creation of a Personal Myth.* The creation of a personal myth has been hypothesized to be a protective factor. McAdams (1993) proposes that the individual's identity is created through one's construction of a unique personal myth. A personal

myth is developed through the compilation of memories of past events, the interpretation of present events, and perceptions about the future. It also serves as a lens by which the individual sees the world and her place in the world. The construction of the personal myth takes a lifetime to complete. This combined sense of purpose and future aspirations are important protective factors (Howard, Dryden, & Johnson, 1999; Wang, Haertel & Walberg, 1994). Likewise, Kumpfer (1999) discusses the characteristic of resilient children to create "plausible fantasies for themselves and to develop a mission or purpose for their lives" (p.198). Both planfulness and aspirations are important for resilient outcomes (Garmezy, 1996). The creation of a personal myth allows the individual to have a goal to strive for and a future that holds better possibilities. Werner and Smith (2001) define this as "achievement motivation". Resilient teens feel that success is really in their grasp. Werner (1990) stated, "they retain the belief, even in the face of great adversity, that they can exert considerable control over their fate" (p.104).

As part of the personal myth, a commitment to achievement is important. Garber and Little (1999) found that adolescents who saw themselves as committed to achievement were more competent especially when they were under increased academic stress. The more competent adolescents who were more committed to achievement were not significantly different from the decreased competent adolescents in regards to IQ or academic ability; it was solely their belief in themselves that they would persevere that differentiated the two groups (Garber & Little, 1999).

Fowler (1981) believes that the adolescent's ability to create a personal myth that incorporates both the past and future possibilities is related to the individual's

development of faith. He posits that both an emerging identity and a sense of faith create a personal myth.

*Perceived Social Support.* The ability to perceive that there are resources available and individuals that can help in times of need has been posited as an important protective factor. Social support can be support in the form of instrumental goods and services, emotional support, informational knowledge based support, or informal socializing (Boger & Smith, 1986; Crockenburg, 1988). The supportive relationship is bi-directional, with the supporter and the supportee both being enriched by the interaction. It is important that a social support structure is available to the developing individual. Furthermore, it is fundamental for social support to be effective that the individual is able to both perceive and use the social support that is available in her environment (Rohrle & Sommers, 1994). If the individual is not aware of the resources of social support available to her, or how to access them, then the resources are meaningless.

In the extreme case of children born and orphaned in the concentration camps during the Second World War (Freud & Dann, 1952), the children that survived the ordeal were able to create and maintain a strong social support system for their sustenance. Though five of the six children had no experience of a mother figure, they were able to create a caring, equal status, devoid of group competition. Freud and Dann (1952) comment that the children were very aware of each other's feelings and were very responsive.

Likewise, Garbarino, Dubrow, Kostelny and Pardo's (1992) investigation of children in war zones found that children who were most successful had a great capacity

for reaching out and asking others for help in their moments of need and that requests were returned with kindness and understanding. This skill of being able to perceive and use social support was fundamental for their survival.

In less arduous environments, Werner (1994) found that resilient children had a large informal network of neighbors, relatives, and elders who they could turn to for support. Werner and Smith (2001) found that social support was an important protective factor from childhood to adulthood. Furthermore, McCubbin, McCubbin, Thompson and Thompson (1998) consider the ability to access both resources and supports is important for resilience. McCubbin, McCubbin, Thompson and Thompson (1998) believe that these social supports include both having the ability to access friends and relatives but also the knowledge and the ability to access community resources and to take advantage of government policies that may benefit them.

*Moral Development.* It has been theorized that increased moral development leads to more resilient outcomes. Kumpfer (1999) discusses the importance of "moral energy" in resilient children. Jessor, Van Den Bos, Vanderryn, Costa and Turbin, (1995) believe that the "perception of strong social controls or sanctions for transgressions" is an important protective factor (p. 924). In fact, Jessor, Van Den Bos, Vanderryn, Costa and Turbin, (1995) found it to be the most predictive protective variable. Likewise, Brooks and Goldstein (2001) believe that understandings of empathy, compassion and self-discipline are fundamental to raising resilient children.

Eisenberg (1992, 2000) posits that the growth of moral behaviors comes from the interrelationship of emotionality and the regulation of those emotions. She has determined that the moral emotions of guilt, shame, and empathy, when they are

combined with either internalizing or externalizing behavior, either positively or negatively impact moral growth. Furthermore, Lickona (1991) sees that moral development is triadic with the components of moral knowing, moral feeling and moral action as all being pertinent to the formation of good character.

*Self-Efficacy*. The importance of self-efficacy as a protective factor has been discussed by many researchers (Emery & Forehand, 1996; Garbarino, Dubrow, Kostelny & Pardo, 1992; Garmezy, 1996; Gore & Eckenrode, 1996; Kumpfer, 1999; Masten & Coatsworth, 1998; Maughan, 1992; McCubbin, McCubbin, Thompson & Thompson, 1998; McMillan & Reed, 1994; Larson, 2000; Rutter, 1999b; Rutter, 1989; Rutter, 1987; Sameroff, 2000; Wang, Haertel & Walberg, 1994; Werner & Smith, 2001). Bandura (1997, 1995, 1989) defines self-efficacy as the individual's belief that s/he has the necessary capabilities to organize and execute the task at hand. Self-efficacy impacts motivation, affect and actions. Bandura (1997, 1995) explains that self-efficacy beliefs are heightened by particular individual and environmental influences. These influences include: mastery experiences, vicarious experiences, social persuasion and physiological or emotional states. Mastery experiences are the successful past accomplishments that are remembered in the present. Vicarious experiences are the observations of the success or failure of a task by a person that the individual believes s/he has commensurate strengths and weaknesses. With a visual model of the execution of the task, the individual either increases or decreases her/his confidence in being able to complete the task. Social persuasion is the verbal cajoling of the individual that s/he does possess the requisite skills to complete the task. Bandura (1995) remarks that social persuasion is often more temporal and rarely effective on its own for developing self-efficacy if it not

based on realistic expectations. The evaluation of internal physiological and emotional states is also employed by the individual to determine self-efficacy. The individual's interpretation of her/his strength, stamina and mood influence the outcome. Increased self-efficacy influences an individual's perseverance, optimism, and the selection and the construction of her/his environment (Bandura, 1997, 1995, 1989). Bandura underscores his discussion of self-efficacy with the belief that an individual needs some set backs and difficulties to realize that success requires an ongoing effort (1997, 1995, 1989).

Conversely, Rutter (1981) hypothesizes that the individual's inability to gain self-efficacy in her environment in the city of London has caused greater deviant behavior. Perseverance and determination are important to self-efficacy. Believing in oneself that one is capable to finish the task at hand, even though the task may be long and arduous, is very important for resiliency.

Self–efficacy can affect individual's perceptions of the future. Seligman (1995) sees that optimism about the future is influenced by prior mastery experiences. Bandura (1982), in his discussion of positive chance encounters, discusses that even though certain life experiences and consequences are not planned or predicted, individuals contribute to their own future success by selecting, influencing and constructing their own circumstances. Individuals with greater self-efficacy have greater ability to create a better future for them.

Interestingly, there is some evidence that protective factors are increased with greater self-efficacy (Gore & Eckenrode, 1996). For example, prior success at perceiving and using social support will improve the likelihood of perceiving and using social support in the future.

*Autonomy.* The ability to cut ties to toxic family members or friends is important to resiliency. Rutter (1987) discusses that children who are able by their own actions to physically or emotionally distance themselves can reduce their exposure to risk. Chess and Thomas (1992) call the coping mechanism for reducing the harmful poorness of fit, "emotional distancing". Emotional distancing allows the youth to become disengaged from the negative emotionality of the parent and to focus their energy on relationships that are more positive. Kumpfer (1999) discusses the importance of the resilient child in separating their own value system from their parent's value system if their parent's value system is destructive for the youth's development.

Autonomy is an important protective factor (Howard, Dryden and Johnson, 1999; Wang, Haertel and Walberg, 1994; Werner, 1994). The ability to resist negative peer pressure seems to effect resiliency (Kumpfer, 1999; Roth & Brooks-Gunn, 2000).

Being autonomous is also the power of not only emotionally distancing oneself from negative individuals in her/his environment, but also moving oneself away emotionally from a period of time that was detrimental to growth and development. Rubin's (1996) personal accounts of several resilient children highlights an adolescent named Peter who stated, "If you decide you are a victim, you can sit around feeling sorry for yourself and blaming the world for your troubles. I haven't got time for that, I have a life to live" (p. 228). Being responsible for oneself is important for resiliency.

Instead of allowing the negative experiences of the past to define who they are in the present, the ability to autonomously redefine who they are now is very important. In Moskovitz (1985), the author of the longitudinal follow-up study of children of the Holocaust from the earlier work of Freud and Dann (1952) discussed the "Chameleon-

like talents" these adult child survivors possess. In most cases, these adults did not dwell on the past experiences; they were living full productive lives. McMillan and Reed (1994) discuss that resilient children often acknowledge past hardships, but do not blame their current performance on those factors.

### *Family Microsystem Protective Characteristics*

*Mother's level of education.* Mother's level of education and school success have been positively correlated with more resilient outcomes for their offspring (Ngo & Malz, 1998; Werner & Smith, 2001). In a cross-cultural study, Sandefur (1998) found that mothers who were most educated had children who had attained higher levels of education than their peers. Of the five cultural groups Sandefur (1998) researched, American Indian, Asian-American, African-American, Latino, and White, he found that Asian-American mothers had the highest level of education, which helped to explain the academic success of their children.

*Family Economic Stability and Social Economic Status (SES).* Greater economic stability seems to allow for greater resilience. In Sameroff's (2000) Rochester Longitudinal Study, he found the best single predictor of children's cognitive competence was social economic status. Furthermore, an important predictor of social-emotional functioning was also SES (Sameroff, 2000; Gore & Eckenrode, 1996). Likewise, Masten and Coatsworth (1998) discuss the advantage that is given to children with greater economic status. Garcia-Coll, Lamberty, Jenkins, McAdoo, Crnic, Wasik and Garcia (1996) posit that social class affects child and adolescent self-esteem, the transmission of parental values to children, and child-rearing practices. The many opportunities of leisure activities and travel that are afforded high SES children also contribute to more

successful outcomes. A life enriched with stimulating and varied activities increases greater cognitive functioning, which then gives a larger repertoire of options for the individual.

*Parental Marriage.* A secure relationship between parenting figures has been shown to be an enduring protective factor for the children (Cicchetti & Lynch, 1993; Emery & Forehand, 1996; McCubbin, McCubbin, Thompson & Thompson, 1998; Rutter, 1999, 1989; Wang, Haertel & Walberg, 1994; Werner, 1986). Conversely, Rutter (1987) found that marital discord increased the disturbance in children, especially boys. Rutter (1987) also found martial dyads that planned for the future was more successful.

*Maternal and Paternal Relationship.* A close relationship to caring parent figure creates more successful outcomes for the child (Bogenschneider, 1998; Brazelton & Greenspan, 2000; Cicchetti & Lynch, 1993; Cicchetti, Toth, & Rogosch, 2000; Cowen, Wyman, Work, Kim, Fagen, & Magnus, 1997; Emery & Forehand, 1996; Garbarino, Dubrow, Kostelny & Pardo, 1992; Garcia-Coll, Lamberty, Jenkins, McAdoo, Crnic, Wasik & Garcia, 1996; Gilvarry, 2000; Jessor, Van Den Bos, Vanderryn, Costa & Turbin, 1995; Luthar, 1999; Masten & Coatsworth, 1998; McLoyd, 1998; McMillan & Reed, 1994; Osofsky, 1999; Roth & Brooks-Gunn, 2000; Skuse, 1983; Wang, Haertel and Walberg, 1994; Werner, 1994, 1986; Werner & Smith, 2001; Yule, 1992). Bronfenbrenner (1979) suggests that every developing person needs one individual who will love her/him unconditionally. Sokol-Katz, Dunham and Zimmerman (1997) posit that the relationship between a child and parent has a more important impact on the child's development than does family structure.

Werner (1986) emphasizes the importance of a close relationship in the infant's first two years of life. Rutter (1999, 1989, 1987,1981) discusses the importance of a strong attachment for the developing person. Rutter (1987) states, "The experience of secure early attachments makes it more likely that children will grow up with feelings of high self-esteem and self-efficacy" (p. 327). Rutter continues by noting that "secure and harmonious parent-child relationships provide a degree of protection against later risk environments" (p. 327). Hubbs-Tait, Osofosky, Hann and Culp (1994) have found that a strong attachment in infancy predicts fewer behavior problems in preschool. This relationship seems to be important throughout development in childhood. In adolescence, a strong relationship seems to ease feelings of distress for the adolescent (O'Koon, 1997). Likewise, it has been found that adolescents who report a strong relationship to their mothers report greater career aspirations and a greater sense of well-being (Field, Lang, & Yando, 1995). Furthermore, Taylor, Lerner and Von Eye (2001) found that when they compared non-gang youth to gang youth, they found that non-gang youth rated their relationships with their parents higher and also believed that their parents would be more supportive of them. The relationship between parent and child is a formidable protective factor.

Furthermore, Masten (1994) found that maternal and paternal relationships that included high quality parenting improved outcomes for children exposed to high levels or risk. Parenting that includes warmth, structure, and high expectations improve child outcomes (Brazelton & Greenspan, 2000; Bogenschneider, 1998; Burton & Jarrett, 2000; Cowen, Wyman, Work, Kim, Fagen, & Magnus, 1997; Garmezy, 1996; Luster& Small, 1997; Luthar, 1999; Masten & Coatsworth, 1998; McLoyd, 1998; McMillan & Reed,

1994; Roth & Brooks-Gunn, 2000; Rutter, 1999, 1989; Skuse, 1984). Furthermore, Youniss (1994) discussed the importance of reciprocity and mutual responsibility in parenting adolescents. Mothers who were able to transform their communication style into a more reciprocal discourse were most successful at having a strong relationship with their offspring into adulthood. Cicchetti and Lynch (1993) reported that a child parent relationship that involved a history of good parenting is an enduring protective factor.

*Family Belonging.* Families that are warm and cohesive are very important for positive outcomes (Brooks & Goldstein, 2001; Burton &Jarrett, 2000; Emery & Forehand, 1996; Garbarino, Dubrow, Kostelny & Pardo, 1992; Garber & Little, 1999; Garmezy, 1985, 1993; Gilvarry, 2000; Luthar, 1999; McLoyd, 1998; McCubbin, McCubbin, Thompson & Thompson, 1998; McMillan & Reed, 1994; Roth & Brooks-Gunn, 2000; Rutter, 1999, 1989; Shek, 1997; Werner & Smith, 2001). Furthermore, a family does not need to necessarily be the traditional organization of mother, father and children to create that sense of belonging. The important ingredient is the caring, responsive adult. In a retrospective study conducted by Hjelle, Busch and Warren (1996), it was found that young adults who had been raised in a family that was emotionally warm, accepting and nurturing had an optimistic view of the world. Likewise, Hubbs-Tait, Osofosky, Hann and Culp (1994) found that high self-esteem on the part of the mothers and more successful outcomes for their children were attributed to stable high-quality parenting practices.

In times of great adversity, the physical proximity of the parent helps buffer the effect of the adversity in the environment. The maintenance of the family to partake in simple routines like meal times and household tasks has been found to contribute to

resilient outcomes in times of stress (Burton & Jarrett, 2000; Garbarino, Dubrow, Kostelny & Pardo, 1992; Howard, Dryden & Johnson, 1999; McCubbin & McCubbin, 1988; Seilhamer & Jacob, 1990; Shek, 1997; Rutter, 1999; Werner, 1994). Furthermore the continuation of celebrating birthdays and other important life events helps buffer the stress that is external to the family (Howard, Dryden & Johnson, 1999; McCubbin & McCubbin, 1988; McCubbin, McCubbin, Thompson & Thompson, 1998). Richters and Martinez's (1993) found that the children's ability to be successful at school was related to the family's ability to maintain a safe and stable home environment especially in areas that had greater community. Peterson and Bishop (2000), in their work on optimism, t found that children who were considered healthy and happy in war torn Beirut had mothers who were healthy and happy. This ability to buffer children during the most dire experiences is fundamental not only to their survival but to their success.

*Parents Transfer Positive Values to Children.* Parents who have high expectations for their children help their children achieve greater growth (Belsky & MacKinnon, 1994; Garbarino, Dubrow, Kostelny & Pardo, 1992; Masten and Coatsworth, 1998; McCubbin, McCubbin, Thompson & Thompson, 1998; Ngo & Malz, 1998). Furthermore, parents who have high educational expectations for their children have more educationally resilient children (Belsky & MacKinnon, 1994; Cowen, Wyman, Work, Kim, Fagen, & Magnus, 1997; Wang, Haertel & Walberg, 1994). Ngo and Malz (1998) and Sandefur (1998) posit that Asian-American academic success is attributed to the parental value put on educational success and the importance of persistence.

Furthermore, optimistic beliefs can be imparted from parent to child. Seligman (1995) explains that children not only listen to parents' explanations of events but how the message is delivered. He found a "strong correlation between a mother's optimism or pessimism and her children's, whether boys or girls" (p.102). Peterson (2000) sees that optimism is an interpersonal characteristic as well as an individual characteristic, which can be transferred from parent to child. Parental child expectations that are optimistic create expectations that are optimistic (Luthar, 1999; Peterson, 2000).

Parents who have strong, enduring beliefs that they have the ability to control their life imparts this belief in their children (Howard, Dryden & Johnson, 1999; McCubbin, McCubbin, Thompson & Thompson, 1998). Ngo and Malz (1998) found that Asian-American parental value of a strong work ethic, persistence, and delaying gratification helps impart the value to their offspring that through hard work they can become successful. Furthermore, Luster and Small (1997) found that adolescents who had parents who disapproved of teenagers having sex had fewer sexual partners.

Parents who transfer the value to their children that they are unique and distinct from their peers improve child outcomes (Burton & Jarrett, 2000). The belief that they are the "diamond in the rough" is especially pertinent for children experiencing multiple risks.

Jerome Kagan (1977) also discusses the concept of values transferred by parents. He stated, "The young child awards extraordinary wisdom to her parents. If they behave as if she were valuable, she takes these actions as evidence of her essential goodness" (p.40). Kagan further discusses that this impacts her sense of self, where she fits into the

world, and peer relations. If a child believes that her parents value her, she will believe herself to be good and capable.

*School Microsystem Protective Characteristics*

*Sense of Belonging.* A sense of belonging reduces feelings of disengagement and alienation (Bogenschneider, 1998; Garcia-Coll, Lamberty, Jenkins, McAdoo, Crnic, Wasik & Garcia, 1996; Maughan, 1992; Roth & Brooks-Gunn, 2000; Wang, Haertel & Walberg, 1994). Students who feel that they are connected to their teachers, classmates, school and instructional program and school functions are better equipped to handle adverse circumstances (McMillan & Reed, 1994; Wang, Haertel & Walberg, 1994). Schools that were smaller had a greater need for all to participate, which then reinforced the sense of belonging to the school (Gump, 1981).

Teaching techniques that facilitated group cohesion also impacted resilience (Hawkins, Catalano and Miller, 1992; Novick, 1998). O'Donnell, Hawkins, Catalano, Abbott and Day (1995) found that children who were at high risk for academic failure who were taught in a cooperative team learning methods were significantly more academically successful than children who had not been taught in this manner. The cooperative learning style was most significant for at risk girls.

Rutter's (1987) research of institutionally reared girls found that "The experience of pleasure, success, and accomplishment at school had helped the girls to acquire a sense of their own worth and of their ability to control what happened to them" ( p. 324). Furthermore, Rutter's earlier work (1981) found that the use of rewards, praise and appreciation were associated with better pupil outcomes. O'Donnell, Hawkins, Catalano, Abbott and Day (1995) similarly found that opportunities for rewards was an important

factor contributing to at risk girls staying in school. Maughan (1992) found that a sense of accomplishment at school compensated for the lack of opportunities for positive growth in their home environment. Furthermore, Werner and Smith (2001) found that positive attitudes about school at age 18 predicted satisfaction with interpersonal relationships at age 40.

Seligman (1995) found that children's success or failure at school was "enormously influenced" by the explanatory style that teachers and coaches used with children at school that began at an early grade level. Those students who were criticized for effort being insufficient were less adversely influenced than those that were criticized for ability. Seligman (1995) hypothesized that effort is a temporary issue and can be easily remedied; however, ability is a more permanent and therefore more detrimental to the individual if it continues over time.

Attending effective schools increased resilience (Emery & Forehand, 1996; Garbarino, Dubrow, Kostelny & Pardo, 1992; Garmezy, 1993; Hawkins, Catalano and Miller, 1992; Jessor, Van Den Bos, Vanderryn, Costa & Turbin, 1995; Masten & Coatsworth, 1998; Maughan, 1992; Novick, 1998; Sandefur, 1998; Wang, Haertel & Walberg, 1994). Howard, Dryden and Johnson (1999) and Maughan (1992) found that schools that encouraged caring relationships, high expectations and opportunities for participation had students who succeeded.

For some resilient students, the school became a home away from home (Wang, Haertel & Walberg, 1994). If positive growth and development was not occurring in the microsystem of the home, it could flourish at the school. Some resilient students have seen the school as an oasis or a refuge (Wang, Haertel & Walberg, 1994).

A positive atmosphere for growth is not merely limited to the ambiance of the school. The actual physical environment of the school is also associated with improved student outcomes (Garmezy, 1993; Wang, Haertel & Walberg, 1994). A school that is physically attractive and well cared for improved student's behaviors and attainment.

*School Mentor.* Garmezy (1985, 1993) believes that the presence of an external support person is fundamental to resilient outcomes. This individual can act as a parent substitute for the adolescent. Gottlieb and Sylvestre (1994) discuss that acceptance, sustained interaction, and a willingness to ease authority and age disparities created strong healthy relationships between adolescents and adults. Luthar, Cicchetti and Becker (2000), in their review of resilience research, discuss the recurring theme of the importance of "connections with competent, pro-social adults in the wider community" (p.545). The identification with a competent role model is important to resilience (Garmezy, 1996). A supportive teacher can play a major role in reducing stress (Larson, 2000; McLoyd, 1998; McMillan & Reed, 1994; Nettles & Pleck, 1996; Roth and Brooks-Gunn, 2000; Wang, Haertel and Walberg, 1994; Werner & Smith, 2001).

Howard, Dryden and Johnson (1999) reported that the most frequently encountered individual outside of the family system that had a positive effect on a resilient child was teachers who took a personal interest in the child. These teachers were able to transcend their role as an academic and become a positive model for personal identification Howard, Dryden & Johnson, 1999). Rutter (1981), Wang, Haertel and Walberg (1994), and McMillan and Reed, (1994) found that the models of behavior their teachers exhibited influenced students.

*Neighborhood Microsystem Protective Characteristics*

*Sense of Community.* The bonds of children and adolescents to pro-social adults in the community and community organizations are important for resilience (Brazelton & Greenspan, 2000; Bogenschneider, 1998; Garcia-Coll, Lamberty, Jenkins, McAdoo, Crnic, Wasik & Garcia, 1996; Masten & Coatsworth, 1998; Osofsky, 1999; Roth & Brooks-Gunn, 2000). Burton and Jarrett (2000) discuss the importance of having a "collective socialization". This includes perceptions that each individual envisions her/himself as a member of the community. Community membership includes both status and responsibility for the individual.

*Collective Efficacy.* Collective efficacy has been defined by Burton and Jarrett (2000) as the "extent to which social ties among residents facilitate the collective monitoring of children relative to shared neighborhood norms and practices" (p.1118). Neighborhoods that emphasize "collective efficacy" are more vibrant and achieve greater cohesion (Burton & Jarrett, 2000; Leventhal & Brooks-Gunn, 2000). Increased collective efficacy has been found to improve outcomes. Conversely, Cicchetti, Toth and Rogosch (2000) reported that neighborhoods with high rates of violence are associated with high rates of physical abuse and severe neglect and low levels of cohesion.

*Social Capital.* Increased social capital has been linked to improved outcomes for at-risk youth. Social support is a psycho-dynamic process, and social capital is a frequent outcome of that process. Connections that are made through a supportive relationship can create social capital. Individuals and groups demonstrated preferential treatment and received benefits when they had a relationship with another individual or group (Bourdieu, 1983; Coleman, 1988; Fukuyama, 1998, 1995; Lin, 1999; Portes, 1993, 1996;

Putman, 1995, 1994, 1993). These positive attitudes toward their relationships created social capital. The preferential treatment and benefits increased when the individual or group had feelings of sympathy and obligation to another individual or group (Schmidt & Robison, 1995). Opportunities, information, access, sharing, formation of organizations, validations, expressions of caring, economic goods and services are all expressions of social capital.

Masten (1998) states that children with higher social capital do best at school. Roth and Brooks-Gunn, (2000) discussed the importance of community social capital for facilitating cooperation and mutual support between members and resilient functioning.

*Peer Microsystem Protective Factors*

*Social Network.* Friends, neighbors, and friends' parents all play an important role for the child in establishing friendships, encouragement, and increasing self-esteem and functioning (Burton & Jarrett, 2000; Emery & Forehand, 1996; Garbarino, Dubrow, Kostelny & Pardo, 1992; Garcia-Coll, Lamberty, Jenkins, McAdoo, Crnic, Wasik & Garcia, 1996; Garmezy, 1993; Hawkins, Catalano and Miller, 1992; McMillan & Reed, 1994; Osofsky, 1999; Wang, Haertel & Walberg, 1994; Werner, 1994; Werner & Smith, 2001). Werner and Smith (2001) found that an increased social network was predictive of positive outcomes for at risk children and youth. Myers (2000), who studies happiness, discussed the increased well-being of individuals who had larger social networks even when there is a significant amount of stress. Gore and Eckenrode (1996) however, believe that a social network has little impact at buffering stress if abject poverty, difficult temperament or severe mental health is present.

*Partner Relationship.* The creation of a strong partner dyad is very important for resilient outcomes in adolescence and adulthood. Individuals, who as children had experienced major risks, reported that the involvement in a secure committed relationship was an important protective factor (Higgins, 1994; Moskovitz, 1985; Quinton, Rutter & Liddle, 1984; Werner, 1994; Werner & Smith, 2001).

*Supportive Friends.* Social support from peers in the form of friendship has had equivocal results in terms of predicting improved adolescent functioning. In some studies a strong social peer network has actually decreased academic success (Fordham & Ogbu, 1986; Taylor, Lerner, Von Eye, 2001). Other studies, in contrast, have found that support from friends were negatively related to distress and positively related to social competence, self-worth and school competence (Cauce, Mason, Gonzalez, Hiraga & Liu, 1994).

## Risk Factors

The connotation of risk, which was borrowed from epidemiology, is to discover which variables increase the probability of negative outcomes for the population. However, the mere absence of a risk does not necessarily equate to the presence of a protective factor.

Risks do not affect all people in the same manner. Sameroff (2000) sees that some risks affect all children in the family; however other risks only affect certain children in the family children. Furthermore, even when the age and the stage of development are controlled, children are not equally affected by the same risk (Gore & Eckenrode, 1996; Sameroff, 2000).

Rutter (1987) believes that the particular risk is not as pertinent as the accumulation of risk factors. Risks are similar to the proverbial straw that broke the camel's back. Rutter (1999b) remarks that children, even in the same family, vary in their vulnerability to risks. Rutter (1987) has found that there is generally a positively correlated relationship between childhood behaviors and adult behaviors; however the correlation generally is extremely low. It is only when an individual with multiple risks in childhood is later evaluated in adulthood where there is a greater correlation. Hence, it is the accumulation of risks over time that is more deleterious for development.

Rutter (1989) also believes that these risks act as a causal chain in which one negative event impacts the individual so that they become more susceptible to further risks. He describes both the school and the family microsystem as venues where the emergence of particularly deleterious risks can then create other future risks. In the school system he emphasizes the role of poor schooling and in the family microsystem the role of poor parenting. Both these occurrences create a variety of negative repercussions.

Risks seem to have a cumulative effect (Bogenschneider, 1998; Werner, 1994). Werner (1994) reports that two thirds of the children in her study with four or more risk factors developed serious learning or behavioral problems by age 10. Similarly, Garmezy (1993) found a relation between the number of stressors and psychiatric disorder in children. He found that a single risk factor increased the probability of childhood psychiatric disorder by 1%; two stressors increased the probability of mental disorder by another 5% for a total of 6%; three stressors increased the rate by another 6% for a total

of 12%, and finally four or more stressors increased the probability of psychiatric disorder by an increment of 21% for a total of 33% (Garmezy, 1993).

Risks, however, may have some beneficial affects. Some level of risk may be necessary for growth (Gore & Eckenrode, 1996). In Elder's (1974) seminal research, he found that some risk actually improved social independence and greater functioning. Bandura (1997) believes that it is only through life's challenges that there is achievement. Likewise, Garmezy (1993) believes that some emotional distress does not nullify the presence of resilient behavior. It is the awareness that the world is an imperfect place that may in fact improve functioning.

Many risk factors have been evaluated by researchers as having a particularly deleterious impact on development. Included are some of the risk factors that are the most frequently cited.

### *Developmental Risk Factors*

*Gender.* Rutter (1987) states that boys are at greater risk for emotional and behavioral problems due to family instability. Trickett (1977) likewise found that boys are more likely to be vulnerable to family maltreatment. Werner (1986) reported that 70% of the Kauai cohort that is experiencing problems is male. Emery and Forehand, (1996) posit that boys are more at risk for negative outcomes following the divorce of their parents than girls. However, Luthar, Cushing, Merikangas and Rounsaville (1998) found no significant differences by gender on psychiatric functioning. In contrast, some research has posited that adolescent girls are at greater risk for negative emotional outcomes (Gore & Eckenrode, 1996).

*Age.* Garbarino, Dubrow, Kostelny and Pardo (1992) found that younger children experiencing violence were more adversely impacted. Similarly, Nagata, Trierweiler, and Talbot (1999) found that younger Japanese-American children interned during the Second World War were more negatively affected by the internment.

In contrast, Luthar, Cushing, Merikangas and Rounsaville (1998) found that older children who had been more negatively affected by their mother's drug addiction. They hypothesized that a longer duration of facing daily adversity had negatively impacted their psychiatric functioning (Luthar, Cushing, Merikangas & Rounsaville, 1998). Age, as a construct reflecting the duration of severe privation, has also been a significant factor in the Romanian orphan children's ability to make substantial cognitive gains (O'Connor, Rutter, Beckett, Keaveney & Kreppner, 2000).

*Difficult Temperament.* Children with a difficult temperament were more at risk for negative outcomes (Rende & Plomin, 1993). Rutter (1999b, 1987) found that children with difficult temperaments were more differentially targeted by parents and were more likely scapegoated. Rutter (1999) hypothesized that the hostility and negative feelings directed at a child, due to scapegoating because of difficult temperament, may put the child at much greater risk than living in a family that is just dysfunctional. Furthermore, children with a difficult temperament may put the family system in greater stress, especially if it is trying to right itself (Emery & Forehand, 1996; Downey & Coyne, 1990; Rutter, 1999b). A difficult temperament was also predictive of adolescent deviant peer affiliations (Fergusson & Horwood, 1999), adolescent drug and alcohol abuse (Hawkins, Catalano & Miller, 1992), and later criminality (Henry, Caspi, Moffitt & Silva, 1996).

Similarly, Caspi, Elder, and Bem (1987) found that ill-tempered boys became ill-tempered men, which created downward economic mobility for them. Ill-tempered girls became women who had trouble in social relationships and predicted ill-tempered parenting.

*History of Physical Abuse.* Parents who are exceedingly rigid in their discipline put children at risk. Parents who are physically abusive to their children put their children at risk for both physical and emotional trauma, which can have long lasting effects (Emery & Laumann-Billings, 1998). Furthermore, parents who vacillate from rigid, punitive discipline to laissez-faire parenting make it especially difficult for children to understand how to respond and behave and therefore put the children at risk (Farrington, 1995). These inconsistent parenting practices have been found to be a risk factor (Emery & Forehand, 1996; Fergusson & Horwood, 1999; Fergusson, Horwood & Lynskey, 1994; Garmezy, 1993; Hawkins, Catalano & Miller, 1992; Henry, Caspi, Moffitt & Silva, 1996; Sameroff, 1990).

*Low Social Economic Status (SES).* Low social economic status has been found to be a predictor of childhood cognitive competence (Garmezy, 1993; Gore & Eckenrode, 1996; Leventhal & Brooks-Gunn, 2000; McLoyd, 1998; Rutter, 1987; Sameroff, 2000). O'Donnell, Hawkins, Catalano, Abbott, and Day (1995) consider poverty a risk for school failure. McLoyd (1998) reported that children who experience poverty in the first five years of their life had significantly fewer years of total education than children experiencing poverty during middle childhood or adolescence. Furthermore, during summers, low SES children lost academic skills while high SES children continue to improve academic skills while on summer vacations (McLoyd, 1998).

Fergusson and Horwood (1999) and Farrington (1995) posit that low SES predicts later deviant peer affiliations. Sameroff (2000) posits that low SES is an umbrella variable that affects parenting, parental attitudes, beliefs, family interactions, and access to organizations. Garmezy (1993) stated, "Chronic poverty provides a longitudinal account of cumulative stressors" (p. 128). These stressors begin before birth with substandard maternal health and poor nutrition, poor medical care, and after birth with school failure, lack of occupational choice, inadequate salaries and chronic under or unemployment (Burton &Jarrett, 2000; Garmezy, 1993). Cicchetti, Rogosch, Lynch and Holt (1993) found that lower social economic status increased the possibility for child maltreatment. Hawkins, Catalano and Miller (1992) believe that extreme economic deprivation is a risk for adolescent and adult alcohol and drug dependency. Henry, Caspi, Moffitt and Silva, 1996, found that lower SES at the birth of the child was related to later criminality. Furthermore, low SES has also been associated with discrimination (Nettles & Pleck, 1996).

*Severe Illness.* A child who had a severe illness as an infant or a child is at greater risk for developmental delays and decreased school performance (Werner, 1994, 1990, 1989, 1986, 1985; Werner & Smith, 2001, 1998, 1992). Furthermore, prolonged illness can impact the parent-child relationship.

### *Family Microsystem Risk Factors*

*Parental Depression or Mental Illness.* Parental depression, mental illness or anxiety has a negative affect on parenting which impacts children's development. (Downey and Coyne, 1990; Fergusson & Horwood, 1999; Fergusson, Horwood & Lynskey, 1994; Garber and Little, 1999; Garmezy, 1993; Gore & Eckenrode, 1996;

Luthar, 1999; Luthar, Cushing, Merikangas & Rounsaville, 1998; Rende & Plomin, 1993; Rutter, 1987; Sameroff, 2000). Yule (1992) found that parents, who had more difficulty processing their own emotions, were less successful in helping their children cope with adverse events. However, it has been postulated that maternal depression alone is not predictive of negative outcomes; it is the combination of maternal depression with negative interpersonal factors low social support, marital discord, or isolation that creates more deleterious outcomes (Downey & Coyne, 1990; Garber & Little, 1999). Similarly, Luthar, Cushing, Merikangas and Rounsaville (1998) found that maternal mental illness when combined with drug addiction and high sensation seeking behavior increased the likelihood of disruptive problems for their children.

Rutter (1987) found that parents who were depressed did not administer punishment equitably. Therefore, the combination of parental depression and a child with a difficult temperament increased child maltreatment.

*Personality Differences with Parents.* Chess and Thomas (1992) and Chess and Alexander (1987) concluded that individual differences in children and parents create goodness or poorness of fit between them. Chess and Alexander (1987) discuss that there is a goodness of fit when the expectations that the parents have for the child and the child's temperament, abilities and characteristics are compatible. A poorness of fit occurs when there is not the compatibility between parent and child and stress and friction can be found. Lerner (1991) and Lerner and Lerner (1984) posit that this goodness or poorness of fit have a contextual dimension as well.

Yule (1992) found that the goodness of fit between parenting style and gender was also important for more resilient outcomes. He found that more resilient girls came

from families where they were not overprotected and independence was emphasized. Resilient boys, however, came from homes where there was structure, rules, parental monitoring and an emphasis on emotional expression.

*Maternal Level of Education.* Mothers with little education are a risk factor for their children's optimal development (Gore & Eckenrode, 1996; Werner & Smith, 2001). Children who have parents who had negative school experiences were at greater risk for school problems as well (Fergusson and Horwood, 1999; Rutter, 1987; Sameroff, 1990). Those mothers that had poor school experiences had lower levels of self-esteem, self-confidence and self-efficacy, which impact their general outlook. Furthermore, Cicchetti, Rogosch, Lynch and Holt (1993) found that children who had been maltreated had parents with fewer years of education than non-maltreated children.

Consequently, lack of prior maternal school success impacts her current ability to provide for her family (Sameroff, 2000). Mothers who have minimal levels of education are less likely to have well paid occupations. Henry, Caspi, Moffitt and Silva (1996) found that mothers with low reading scores were correlated with their children's later criminality.

*Parents Not Around.* The lack of the parent being physically present was found to be a risk factor. In the extreme cases, the loss of being parented may have an intergenerational effect; Quinton, Rutter and Liddle's longitudinal study of institutionally raised females (1984) found that the women who were institutionally raised throughout childhood, in adulthood were 35% more likely to experience a temporary or permanent parenting breakdown of their own children. Furthermore, Werner and Smith (2001)

found a strong correlation between children who had been separated from their mother for a significant period and coping problems at age 40.

The lack of father figure present in the life of the child was a risk factor (Fergusson & Horwood, 1999; Fergusson, Horwood & Lynskey, 1994; Henry, Caspi, Moffitt & Silva, 1996; Sameroff, 2000). Additionally, children who were raised in homes where there were constant changes in the configuration of the parental unit were at risk for later criminality (Henry, Caspi, Moffitt & Silva, 1996).

*Parents Not Aware.* Neglectful or laissez faire parenting has been found to put children at risk (Farrington, 1995; Fergusson, Horwood & Lynskey, 1994; Garmezy, 1993). Children who were not given basic care, or received too little supervision were at risk for both injury and becoming involved in risky or harmful activities. Furthermore, Rutter (1987) discussed the importance of "efficient parental monitoring of children's play and friendships" (p. 326). This need for parental monitoring extends throughout adolescence. Small and Luster (1994) reported that there was a relationship between the amount of parental monitoring of adolescents and the adolescents' level of sexual activity.

*Severe Marital Discord.* Severe marital discord had a negative effect on the development of children (Downey & Coyne, 1990; Emery & Forehand, 1996; Farrington, 1995; Fergusson & Horwood, 1999; Fergusson, Horwood & Lynskey, 1994; Garmezy, 1993; Rutter, 1999b, 1987; Werner, 1986).

*Witnessing Domestic Violence.* Marital discord that included domestic violence is particularly devastating to developing children. Fantuzzo and Mohr (1999) found that children who witnessed or heard domestic violence were more likely to have lower self-

esteem, aggression problems at school, depression, anxiety, phobias, bed-wetting and insomnia.

*Family Size and Sibling Spacing.* A family with over four children in the family has been found to be a risk factor (Farrington, 1995; Garmezy, 1993; Hawkins, Catalano & Miller, 1992; Rutter, 1987; Sameroff, 1990). Closely spaced siblings of less than two years are also a risk factor (Werner, 1986; Werner & Smith, 2001).

*Home Too Small.* Living in housing that is overcrowded has been found to be a risk factor (Farrington, 1995; Fergusson & Horwood, 1999; Garmezy, 1993). The stress of living in overcrowded housing effects family functioning. Rutter (1974) found that children who lived in cramped inner city London tenement houses had higher rates of deviant behavior.

*Parental Drug and Alcohol Abuse.* Parental drug or alcohol abuse is a risk factor (Fergusson & Horwood, 1999; Fergusson, Horwood & Lynskey, 1994; Gore & Eckenrode, 1996; Hawkins, Catalano & Miller, 1992; Luthar, Cushing, Merikangas & Rounsaville, 1998; Seilhamer & Jacob, 1990; Werner, 1986; Werner & Smith, 2001). Parents who are abusing substances are often unable to satisfactorily perform their role as a protective parent.

*Frequency of Moving.* The frequency of moving has been found to be a risk factor. Cicchetti, Toth and Rogosch (2000) found that children who were changing schools several times a year were more likely to be maltreated by their parents and more likely to be isolated from peers. This sense of isolation and lack of belonging has been found to be very deleterious for positive development.

*School Microsystem Risk Factors*

*Being Bullied.* Having been bullied as a child, impacts the self-esteem of the adolescent, which may impact social interactions and optimal functioning in adults (Cleary, 2000; Duncan, 1999; Olweus, 2001a; Olweus, 2001b). Bullying harassment by peers has a continuing effect on the victim. Duncan (1999) reports that 46% of young adults who were bullied as children still think about having been bullied. In addition, Olweus (2001) found that several years after the bullying incidents, adolescents who had been bullied in late elementary school were still being affected by higher levels of physical and mental distress than their non-bullied peers.

In the extreme cases, negative feelings due to bullying victimization may manifest itself in suicidal or aggressive behavior. Cleary (2000) found that "violent or suicidal behavior occurred 1.4 to 2.6 times more frequently among victimized students as compared to non-victimized students" (p.674). Similarly, Olweus (2001a) found that there was a relationship between victimization and suicidal ideation.

### *Neighborhood Microsystem Risk Factors*

*Neighborhood Not Safe.* Living in a neighborhood that is not safe has been found to be a risk factor. Hawkins, Catalano and Miller (1992) found that population density, high mobility, physical deterioration of the neighborhood, and high levels of crime put the adolescents and young adults who live in those neighborhoods at risk for drug and alcohol dependency. Osofsky (1999) posits that high levels of neighborhood violence can affect children with symptoms ranging from temporary upset to post-traumatic stress disorder.

Furthermore, living in a neighborhood that is unsafe often undermines the ability to create neighborhood networks and social support, which has been associated with child

maltreatment (Cicchetti, Toth & Rogosch 2000; Garbarino, Dubrow, Kostelny & Pardo, 1992).

Each of these protective and risk factors that have been discussed may be more or less pertinent to a particular individual in a particular situation at a particular time.

For this study, an attempt was made to measure each of the protective and risk factors discussed in this chapter. These measures are discussed in the following chapter.

# Chapter III

# RESEARCH METHODOLOGY

This chapter is divided into eight sections. First information is provided about the sample. Second, the research design is discussed, followed by information regarding the independent and dependent variables. Fourth, the instruments are presented, followed by a discussion of the subscales. The sixth section presents reliability analysis. Information regarding data collection is discussed in the seventh section, and in the eighth section information regarding data analysis is provided.

## Sample

The sample for this study was from the Sapporo area, on the northern island of Hokkaido, Japan. Sapporo is the fifth largest city in Japan with a population of approximately 1.79 million. The individuals who took part in the investigation ranged in age from 18 to 22. To obtain a diverse and representative sample, students from different types of academic institutions were surveyed. Data were collected at nine different academic institutions. The respondents came from four four-year universities, two two-year universities, and three vocational colleges. Further discussion of the actual sample is presented in Chapter IV.

The total student population of the nine institutions is 27,135. It was calculated that the sample size that was needed for this study was 655 participants to assure

sufficient power (Fink & Kosecoff, 1998; Rea & Parker, 1997). The final working sample size was 802, which surpassed the needed sample size.

## Research Design

This exploratory study was carried out at the particular colleges where the students attended. The design was non-experimental. The associations among the variables of interest were examined with data collected at one point in time. The unit of analysis was the individual college student. The investigator collected the data.

The students who wished to participate in the study and had discussed, read and signed the consent form were given three written measures: an instrument created to measure protective factors (HEPFYA), a questionnaire on risks and stresses (LESJY), and demographic information questionnaires. All measures were translated into Japanese by a native speaker and then translated by another individual back into English to ensure proper translation. More information is provided on the instruments later in the chapter.

## Independent and Dependent Variables

There were 25 protective factor variables and 26 risk factor variables that constituted the independent variables. The protective factor variables include internal factors, peer microsystem factors, neighborhood microsystem factors, school microsystem factors, and family microsystem factors. The internal protective factors assessed were: autonomy, self-efficacy, creation of a personal myth, optimism, sense of humor, easy temperament, physical beauty, moral development, mental flexibility, emotional intelligence, spirituality, and perceptions of social support. The peer microsystem protective factors assessed were: partner relationship, social network, and supportive friends. The neighborhood microsystem protective factors investigated were:

sense of community, collective efficacy, and social capital. The school microsystem protective factors assessed were: sense of belonging at school, and mentor relationship. The family microsystem protective factors assessed were: sense of family belonging, strength of parental marriage, familial economic stability, parental values imparted, paternal relationship, and maternal relationship.

The risk factor variables included developmental factors, neighborhood microsystem factors, school microsystem factors, family microsystem factors and media influences. The developmental risk factors that were assessed were: a history of physical illness, feeling undervalued due to gender, a history of physical abuse, a history of sexual abuse, involvement in Enjo Kosai (school girl prostitution), confusion over sexual orientation, and alcohol use. The neighborhood microsystem risk factor of living in an unsafe neighborhood was assessed. The school microsystem risk factor investigated was being bullied. The family microsystem risk factors that were measured were: parental depression, witnessing domestic violence, personality differences with parents, lack of parental social support, parental use of alcohol, lack of parental awareness of respondent's activities, physical absence of parents, parental favoritism of sibling, believing the respondent's mother was involved in Terekura (telephone sex), believing the respondent's father visited Fuzoku (brothels), parental gambling, frequency of moving, and living in a home that is too small. The media risk factors assessed were embracing Hip Hop culture, and viewing sex and violence on television.

The dependent or outcome variables were internalizing behavior, delinquency, drug use, alcohol use, tobacco use, sexual activity and intercourse age.

## Instrumentation

There were three instruments that were used in the investigation. They included:

*The Haddow Ecological Protective Factors for Young Adults (HEPFYA)*

The HEPFYA has 151 items with responses given in a five-point Likert scale format. Questions are asked regarding individual protective factors, family microsystem protective factors, school microsystem protective factors, neighborhood protective factors, and peer microsystem factors that a college student may possess or have in her environment. The questions are based on a careful review of the literature on protective factors that have been linked to positive individual outcomes for at-risk youth in North America, Europe, New Zealand, and Australia. The investigator created the HEPFYA instrument.

*The Life Events Survey for Japanese Youth (LESJY)*

The LESJY has 114 items and responses are given on a five-point Likert scale. The LESJY combines items from Stephen Small's (2000) Teen Assessment Project (TAP) Survey, with items found in the National Longitudinal Study (NLSY) (2000) and items created by the investigator based on the risk literature in North America, Europe, New Zealand, and Australia. Also included in the LESJY are items that are of particular concern in Japan. The investigator compiled the LESJY instrument.

*Demographic Information*

Basic demographic information was collected regarding the age of the respondents, the sex of the respondents, the family organization of the respondents, and the academic background of the respondents' parents. The demographic information questionnaire was developed by the investigator.

## Subscales

All items were scored on a five-point Likert scale. A total score for each subscale was constructed by averaging the item scores for each subscale. Cronbach's Alpha was calculated for each subscale. Some items were removed fro the subscales due to low scores. Each protective factor, risk factor and outcome measure will be discussed in greater detail in the following section.

### *Protective Factors Subscales*

#### *Individual Protective Factors*

*Autonomy.* Autonomy is the ability of the individual to differentiate between her own needs and her relational identity with others in her life. Three items were included in this subscale: If family members are treating me poorly, I have the right to get away from them; If friends are treating me poorly, I have the right to get away from them; and If my boyfriend/girlfriend is treating me poorly, I have the right to get away from him/her. Responses ranged from strongly agree (4) to disagree strongly (0). High scores indicated greater autonomy. Cronbach's alpha was calculated at .78.

*Self-Efficacy.* Self-efficacy is the individual's belief that she has the capacity to complete the task at hand. Three items were included in the self-efficacy subscale: When I see others I know complete a task, I feel like I can complete the task too; If I have been successful in the past, I am usually successful again; and If I put my mind to it I can be successful. Responses ranged from always (4) to never (0). High scores indicated higher levels of self-efficacy. Cronbach's alpha was calculated at .63.

*Creation of a Personal Myth.* This subscale evaluates the existence of an internal blueprint or script that the individual follows through life. There were three items that

were included in the subscale: I believe that I will have a happy life; I believe that if I work hard I will be successful; and I believe that I can make my plans a reality. Responses ranged from strongly agree (4) to disagree strongly (0). High scores indicated a more substantial personal myth. Cronbach's alpha was calculated at .70.

*Optimism.* Optimism is a hopeful outlook for the future. Three items were included in the subscale: In uncertain times, I usually expect the best; I am always optimistic about my future; and I believe that even when I have problems, things will turn out OK. Responses ranged from strongly agree (4) to disagree strongly (0). High scores indicated greater optimism. Cronbach's alpha was calculated at .53.

*Sense of Humor.* This subscale included three items. The questions were: I am able to make people laugh when they are feeling down or stressed; I feel that having a sense of humor helps me out; and I can find something to chuckle about even when things look bleak. Responses ranged from always (4) to never (0). High scores indicated a greater sense of humor. Cronbach's alpha was calculated at .64.

*Easy Temperament.* Individuals with an easy temperament are adaptable to new situations and new stimuli, and are cheerful. There were four items included in this subscale. The questions were: I am easily distracted; It is hard for me to adapt to change; I have a short attention span; and I am uncomfortable meeting new people. Responses ranged from always (0) to never (4). High scores indicated easier temperaments. Cronbach's alpha was calculated at .64.

*Physically Beauty.* Physical attractiveness is the level of comeliness the individual possesses. This subscale included three items. They were: My friends consider me to be attractive; I consider myself to be attractive; and I have received

positive attention because I am attractive. Responses ranged from always (4) to never (0). High scores indicated higher levels of self-professed physical beauty. Cronbach's alpha was calculated at .80.

*Moral Development.* Moral development involves moral feeling, moral thought and moral action. Four items constituted the moral development subscale. These items included: I have a strong sense of shame if I do something wrong; I think I should do what is right even if it will make me unpopular; I consider others feelings when I make decisions; and I feel guilty if I do not do what I know is right. Responses ranged from always (4) to never (0). High scores indicated higher levels of moral development. Cronbach's alpha was calculated at .55.

*Mental Flexibility.* Mental flexibility is the ability to think "out of the box". Two items were included in the subscale. They were: I think about ideas from different points of view; and I am open to new ideas. Responses ranged from always (4) to never (0). High scores indicated higher levels of mental flexibility. Cronbach's alpha was calculated at .54.

*Emotional Intelligence.* Emotional intelligence involves knowing one's own emotions, controlling one's own emotions, recognizing the emotions in others, and managing relationships. Five items were included in the emotional intelligence subscale. These items were: I know my own feelings and emotions; I can wait to get what I want; I know how to motivate myself so that I will finish what I started; I am good at understanding how others are feeling; and I have friends of both sexes. Responses ranged from always (4) to never (0). High scores indicated higher levels of emotional intelligence. Cronbach's alpha was calculated at .54.

*Spirituality.* Spirituality is the belief in a higher power. There were four items in the subscale for spirituality. They were: My spiritual beliefs help guide my decisions; I feel like God has a plan for me; My sense of spirituality gives me hope for the future; and I feel that with God I am not alone. Responses ranged from always (4) to never (0). High scores indicated higher levels of spirituality. Cronbach's alpha was calculated at .76.

*Perceived Social Support.* Knowing that resources are available and that there are people that can help is to perceive social support. There were two items that were included in this subscale: I feel that I should not ask for help from others, and I do not ask people for help because I am afraid of being turned down. Responses ranged from always (0) to never (4). High scores indicated higher levels of perceived social support. Cronbach's alpha was calculated at .60.

*Peer Microsystem*

*Partner Relationship.* There were two items that were incorporated in this subscale. They were: Regarding your partner, how often does she/he express affection or love for you, and Regarding your partner, how often does she/he encourage or help you to do things that are important to you. Responses ranged from always (4) to never (0). High scores indicated a stronger partner relationship. Cronbach's alpha was calculated at .89.

*Social Network.* Social network involves both the number of contacts to other individuals in the respondent's life, but also the ability to gain the help from these individuals when needed. There were six items in this subscale: I know _____ people I can count on to help me out if I need money; I have gone to _____ people to ask for

money; I know _____people I can go to if I need advice; I have gone to _____ people for good advice in the past; I know _____ people I can count on to listen to me if I feel sad; and I have gone to _____ people before when I needed to talk. How many people do know or have you approached. The responses ranged from no one (0) to four or more people (4). High scores indicated a larger social network. Cronbach's alpha was calculated at .81.

*Supportive Friends.* Four items were included in this subscale: I have a friend that I can trust to give me good advice; I have no friends that really know me (recoded); I feel that my friend(s) would do anything to help me out; and I feel that my friends are only interested in what I can do for them (recoded). Responses ranged from strongly agree (4) to disagree strongly (0). High scores indicated more supportive friends. Cronbach's alpha was calculated at .54.

*Neighborhood Protective Factors*

*Sense of Community.* Three items were included in the subscale: In the neighborhood I grew up, I knew my neighbors names; Where I grew up, I visited my neighbors to talk to them; and In my neighborhood where I grew up, I considered myself to be part of a community. Responses ranged from always (4) to never (0). High scores indicated a greater sense of neighborhood community. Cronbach's alpha was calculated at .73.

*Collective Efficacy.* Collective efficacy is the collective monitoring of the physical neighborhood and the children that reside within the neighborhood. This subscale included three items: People in the neighborhood where I grew up watched out for each other; My neighborhood where I grew up was well maintained; and In my

neighborhood where I grew up, if someone saw me do something wrong they would tell my parent(s). Responses ranged from always (4) to never (0). High scores indicated higher levels of collective efficacy. Cronbach's alpha was calculated at .56.

*Social Capital.* Social capital refers to the linkages between people to other individuals, information or resources. There were four items in the subscale: I know _____ people that can help connect me to new groups of people; I know _____ people that can help connect me to future jobs or careers; I know _____ people that can help me make connections to important people; and I know _____ people that can help me get important information. The responses ranged from no one (0) to four or more people (4). High scores indicated greater social capital. Cronbach's alpha was calculated at .84.

*School Microsystem Protective Factors*

*School Belonging.* The subscale school belonging measures the positive atmosphere for growth at college. There were four items in the subscale: At college, I can forget about my problems; I have the opportunity to share my own thoughts in classes; I feel like I am learning things at my college that will be helpful in the future; and The style of teaching that is presented in my classes is interesting to me. Responses ranged from always (4) to never (0). High scores indicated a greater sense of school belonging. Cronbach's alpha was calculated at.56.

*School Mentor.* There were three items that were included in the subscale: At college, there is an instructor that I like to talk to about my studies; At college, there is an instructor that I would like to be like when I am an adult; and At college, there is an instructor that has taken a particular interest in me. Responses ranged from strongly

agree (4) to disagree strongly (0). High scores indicated a greater relationship with a school mentor. Cronbach's alpha was calculated at. 74.

*Family Microsystem Protective Factors*

*Family Belonging.* Family belonging is the sense that the family unit is cohesive, supportive, and congratulatory. There were two items that constituted the subscale: We celebrated birthdays and holidays together as a family, and Growing up, I felt that my parent(s) could protect me from some of the bad things happening in the world. Responses ranged from always (4) to never (0). High scores indicated a greater sense of belonging in the family. Cronbach's alpha was calculated at .61.

*Parental Marriage.* This subscale assesses the strength of the parental dyad. Two items were included in the subscale. They were: My parents (OR parent and step-parent OR parent and significant other) are committed to each other, and I consider that my parents (OR parent and step-parent OR parent and significant other) have a vibrant/healthy relationship. Responses ranged from always (4) to never (0). High scores indicated a stronger marital relationship. Cronbach's alpha was calculated at .65.

*Parental Values.* Parental values is the transference of values from parent to child. There were two items in the subscale: My parent(s) have taught me right from wrong, and My parent(s) believe that hard work will guarantee future success. Responses ranged from always (4) to never (0). High scores indicated that parental values were imparted to their offspring. Cronbach's alpha was calculated at .63.

*Family Economic Stability.* Family economic stability is the economic security that the family is afforded. There were two items included in this subscale. They were: My family has money to purchase things we do not need but want, and I consider my

family to be well off financially. Responses ranged from always (4) to never (0). High scores indicated higher levels of family economic stability. Cronbach's alpha was calculated at .69.

*Paternal Relationship.* Paternal relationship is the strength of the relationship between the respondent and her/his father. Three items were included in this subscale. They were: I think highly of my father; My father is a person I would like to be like; and I really enjoy spending time with my father. Responses ranged from strongly agree (4) to disagree strongly (0). High scores indicated a more positive paternal relationship. Cronbach's alpha was calculated at .83.

*Maternal Relationship.* Maternal relationship is the strength of the relationship between the respondent and her/his mother There were three items that comprised this subscale. They were: I think highly of my mother; My mother is a person I would like to be like; and I really enjoy spending time with my mother. Responses ranged from strongly agree (4) to disagree strongly (0). High scores indicated a more positive maternal relationship. Cronbach's alpha was calculated at .77.

*Risk Factors Subscales*

*Developmental Risk Factors*

*History of Sexual Abuse.* There were three items in this subscale. They included: I was touched inappropriately by a stranger (chikan) on a train or a bus; I was pressured to have sex when I did not want to; and I was sexually abused by an adult. Responses ranged from never (0) to four or more times (4). High scores indicated a greater frequency of sexual abuse. Cronbach's alpha was calculated at .66.

*Enjo Kosai.* Enjo Kosai is school-girl prostitution. This was a single item. The question was: I had sex or performed sexual acts to obtain things I wanted (Enjo Kosai). Responses ranged from never (0) to four or more times (4). High scores indicated a greater frequency of Enjo Kosai.

*Physical Illness.* This was a single item. The question was: Growing up, I had a severe physical illness. Responses ranged from never (0) to always (4). High scores indicated a greater period of time the respondent was affected by a severe physical illness.

*Undervalued due to Gender.* This was a single item: I was undervalued due to my gender. Responses ranged from never (0) to four or more times (4). High scores indicated greater frequency of being undervalued due to gender.

*History of Physical Abuse.* This subscale had three items: Growing up, I was hit when I did poorly in school; Growing up, I was hit when I did not give my parents respect; and Growing up, I was hit when I embarrassed my family. Responses ranged from never (0) to always (4). High scores indicated a greater history of physical abuse. Cronbach's alpha was calculated at .82.

*Confusion over Sexual Orientation.* This was a single item: Growing up, I was confused about my sexual orientation. Responses ranged from never (0) to always (4). High scores indicated more confusion over sexual orientation.

*Alcohol use.* This was a single item: How often have you used alcohol (beer, wine, whiskey, sake) in the last year. Responses ranged from never (0) to daily (4). High scores indicated greater alcohol consumption.

*Neighborhood Microsystem Risk Factors*

*Neighborhood Not Safe.* This subscale had five items. They were: Growing up, my neighborhood was not safe after dark; Growing up, street gangs operated in my neighborhood; Growing up, I knew people who were involved in street gangs; Growing up, Yakuza (mafia) operated in my neighborhood; and Growing up, I knew people who were involved in Yakuza (mafia). Response ranged from never (0) to always (4). High scores indicated living in a less safe neighborhood. Cronbach's alpha was calculated at .80.

*School Microsystem Risk Factors*

*Bullied.* This was a single item: I was bullied at school. Responses ranged from never (0) to four or more times (4). High scores indicated a greater frequency of being bullied in school.

*Family Microsystem Risk Factors*

*Parental Depression.* This subscale included four items. They were: Growing up, my mom was very sad or depressed; Growing up, my dad was very sad or depressed; Growing up, my mom was stressed out; and Growing up, my dad was stressed out. Responses ranged from never (0) to always (4). High scores indicated greater parental depression. Cronbach's alpha was calculated at .82.

*Domestic Violence Witnessed.* This subscale included four items. They were: I heard my father be verbally abusive to my mother; I saw my father hit my mother; I heard my mother be verbally abusive to my father; and I saw my mother hit my father. Responses ranged from never (0) to four or more times (4). High scores indicated greater domestic violence witnessed. Cronbach's alpha was calculated at .82.

*Personality Differences with Parents.* Two items comprised this subscale. They were: I feel like my parents and I never really connected, and My parent(s) and I have trouble finding common ground with each other. Responses ranged from always (4) to never (0). High scores indicated greater personality differences with their parents. Cronbach's alpha was calculated at .75.

*Parents' Lack of Social Support.* This subscale included four items: Growing up, my mom had friends to help her out; Growing up, my dad had friends to help him out; Growing up, my mom had family to help her out; and Growing up, my dad had family to help him out. Responses ranged from never (4) to always (0). High scores indicated a lack of parental social support. Cronbach's alpha was calculated at .84.

*Parents Use of Alcohol.* This subscale had two items: Growing up, my mom drank alcohol to get drunk, and Growing up, my dad drank alcohol to get drunk. Responses ranged from never (0) to always (4). High scores indicated greater parental alcohol consumption. Cronbach's alpha was calculated at .63.

*Parents Not Aware.* This subscale included two items: Growing up, my mom was not aware of what I was doing, and Growing up, my dad was not aware of what I was doing. Responses ranged from never (0) to always (4). High scores indicated greater parental lack of awareness of respondent's activities. Cronbach's alpha was calculated at .80.

*Parents Not Around.* In this subscale, the lack of physical presence of the parents throughout childhood is assessed. This subscale had four items. They were: Growing up, my dad ate dinner with me; Growing up, my mom ate dinner with me; Growing up, my dad was at home when I went to bed; and Growing up, my mom was at home when I

went to bed. Responses ranged from always (0) to never (4). High scores indicated frequent parental absence. Cronbach's alpha was calculated at .84.

*Parental Favoritism of Sibling.* There were two items in this subscale. They were: Growing up, my mom favored my sibling(s) over me, and Growing up, my dad favored my sibling(s) over me. If the respondent had no siblings, they were asked to leave the question blank. Responses ranged from never (0) to always (4). High scores indicated greater parental favoritism of a sibling. Cronbach's alpha was calculated at .85.

*Believe Mom is involved in Terekura (telephone sex).* There were two items in this subscale: I believe that my mom was involved with Terekura to meet people, and I believe that my mom was involved with Terekura to make money. Responses ranged from never (0) to four or more times (4). High scores indicated presumed maternal involvement in Terekura. Cronbach's alpha was calculated at .88.

*Believe Dad visits Fuzuko (brothels).* This was a single item: I believe that my father has gone to fuzuko. Responses ranged from never (0) to four or more times (4). High scores indicated presumed paternal involvement in Fuzuko.

*Parent Gambles.* There were four items included in this subscale. They were: Growing up, my dad gambled; Growing up, my mom gambled; Growing up, my dad's gambling caused debts; and Growing up, my mom's gambling caused debts. Responses ranged from never (0) to always (4). High scores indicated greater parental gambling. Cronbach's alpha was calculated at .79.

*Frequency of Moving.* This was a single item. The question was: Growing up my family moved__ times. Responses ranged from never (0) to four or more times (4). High scores indicated greater frequency of moving.

*Home Too Small.* This was a single item. The item was: Growing up, my home was too small for my family. Responses ranged from never (0) to always (4). High scores indicated more cramped living quarters.

*Media Influence Risk Factors*

*Hip Hop Culture.* Three items were included in this subscale. Items were: Growing up, I listened to Hip hop music or watched Hip Hop videos; Growing up, I wore Hip Hop clothes; and I consider myself to be a part of Hip Hop culture. Response ranged from never (0) to always (4). High scores indicated greater involvement in Hip Hop culture. Cronbach's alpha was calculated at .77.

*View Violence/Sex on TV.* There were two items included in this subscale. They were: Growing up, I watched sexually explicit television shows or movies, and Growing up, I watched violent television shows or movies. Response ranged from never (0) to always (4). High scores indicated greater viewing of sex and violence. Cronbach's alpha was calculated at .80.

*Outcome Subscales*

*Internalizing Behavior*

The Internalizing Behavior outcome subscale included seven items. They were: I felt lonely; I did not feel like eating, my appetite was poor; I had trouble keeping my mind on what I was doing; I felt depressed; I felt sad; I did not like myself; and I thought about killing myself. Responses ranged from never (0) to always (4). High scores indicated more internalizing behavior. Cronbach's alpha was calculated at .84.

*Delinquency*

The Delinquency subscale included eight items. They were: I was involved with street gangs; I was involved with the Yakuza (mafia); I shoplifted; I took money from my parents without asking them; I vandalized public or private property; I had problems with the police; and I spent time at a youth center (jidosodanjo). Responses ranged from never (0) to four or more times (4). High scores indicated greater delinquent behavior. Cronbach's alpha was calculated at .79.

*Drug Use*

The Drug Use subscale included six items. Each item asked about the consumption of certain drugs over the last year. The items were: I use marijuana; I use inhalants (paint thinner, lighter fluid); I use prescription drugs for non-prescription purposes; I use cocaine/crack; I use steroids; and I use ecstasy or other designer drugs. Responses ranged from never (0) to daily (4). High scores indicated more drug use. Cronbach's alpha was calculated at .92.

*Alcohol Use*

The Alcohol Use outcome variable was a single item. The item asked the frequency that the respondent had used alcohol in the last year. The question was: I use alcohol (beer, wine, whiskey, sake). Responses ranged from never (0) to daily (4). High scores indicated greater alcohol use.

*Tobacco Use*

The Tobacco Use outcome variable was a single item. The item asked the frequency that the respondent had used tobacco in the last year. The question was : I use tobacco. Responses ranged from never (0) to daily (4). High scores indicated greater tobacco use.

*Intercourse Age*

The Intercourse Age outcome variable is a single item. The item asked the age of first sexual intercourse. Responses ranged from it never occurred (0) to at thirteen years old or younger (4). High scores indicated an earlier age at first intercourse.

*Sexual Activity*

Originally, one outcome variable was considered to measure sexual behavior, intercourse age. However, it was discovered that the combination of the item regarding age of first intercourse with the item regarding age of oral sex allowed a different picture to emerge in the data analyses. Therefore, both outcomes are provided. Responses ranged from it never occurred (0) to at thirteen years old or younger (4). High scores indicated increased sexual activity at a younger age. Cronbach's alpha was calculated at .80.

## Reliability Analysis

As previously discussed, the internal consistency was computed using Cronbach's Alpha. The subscale scores with a .5 or greater Alpha were included in the tables. To view the Alpha coefficients separately, three tables were created: the protective factor Alpha coefficients (table 1), risk factor Alpha coefficients (table 2) and outcome subscale Alpha coefficients (table 3). All of these coefficients were in the acceptable range; however, some of the coefficients were not as large as would be ideal. In general, the risk factor and outcome coefficients were more robust than the protective factor coefficients. The protective factor coefficients ranged from .53 to .89. The risk factor coefficients ranged from .63 to .89, and the outcome coefficients ranged from .79 to .92.

**Table 1 Internal Consistency of Protective Factor Variables Using Cronbach's Alpha**

| **Internal Factors Protective Factors** | **Alpha** |
|---|---|
| Autonomy | .7802 |
| Self-Efficacy | .6334 |
| Personal Myth | .7026 |
| Optimism | .5265 |
| Sense of Humor | .6419 |
| Temperament | .6374 |
| Physically Beauty | .8031 |
| Moral Development | .5538 |
| Mental Flexibility | .5362 |
| Emotional Intelligence | .5384 |
| Spirituality | .7634 |
| Perceive Social Support | .6022 |
| **Peer Microsystem Protective Factors** | |
| Partner Relationship | .8881 |
| Social Network | .8076 |
| Supportive Friends | .5366 |
| **Neighborhood Microsystem Protective Factors** | |
| Sense of Community | .7261 |
| Collective Efficacy | .5627 |
| Social Capital | .8379 |
| **School Microsystem Protective Factors** | |
| School Belonging | .5643 |
| School Mentor | .7437 |
| **Family Microsystem Protective Factors** | |
| Family Belonging | .6097 |
| Parental Marriage | .6487 |
| Parental Values | .6339 |
| Family Economic Stability | .6855 |
| Paternal Relationship | .8260 |
| Maternal Relationship | .7728 |

**Table 2 Internal Consistency of Risk Factor Variables Using Cronbach's Alpha**

| | |
|---|---|
| **Developmental Risk Factors** | |
| Physical Illness | single item |
| Undervalued due to Gender | single item |
| History of Physical Abuse | .8242 |
| History of Sexual Abuse | .6640 |
| Enjo Kosai (school girl prostitution) | single item |
| Confusion over Sexual Orientation | single item |
| Alcohol use | single item |
| *Neighborhood Microsystem Risk Factors* | |
| ***Neighborhood Not Safe*** | ***.8019*** |
| *School Microsystem Risk Factors* | |
| Bullied | single item |
| *Family Microsystem Risk Factors* | |
| Parental Depression | .8226 |
| Domestic Violence Witnessed | .8191 |
| Personality Difference with Parents | .7451 |
| Parents Lack Social Support | .8410 |
| Parents Use Alcohol | .6306 |
| Parents Not Aware | .7993 |
| Parents Not Around | .8380 |
| Parental Favoritism of Sibling | .8478 |
| Believe Mom is involved in Terekura (telephone sex) | .8839 |
| Believe Dad visits Fuzuko (brothel) | single item |
| Parent Gambles | .7935 |
| Frequency of Moving | single item |
| Home Too Small | single item |
| *Media Influence Risk Factors* | |
| Hip Hop Culture | .7687 |
| View Violence/Sex on TV | .7999 |

**Table 3 Internal Consistency of Outcome Variables Using Cronbach's Alpha**

| | |
|---|---|
| Internalizing Behavior | .8368 |
| Delinquency | .7890 |
| Drug Use | .9226 |
| Alcohol Use | single item |
| Tobacco Use | single item |
| Age of Sexual Activity | .7949 |
| Intercourse Age | single item |

## Data Collection Procedures

Faculty members from the institutions where data were being collected were asked to announce the study to their students. Those students who were interested in participating in the study were advised of their rights as a participant and signed the consent form that had been approved by UCHRIS. The instruments were all self-administered paper and pencil surveys that took approximately 45 minutes to one hour and a half to complete. All answers were recorded on a computer bubble sheet to achieve more efficient and accurate data entry. At the completion of the questionnaire, they were asked if they would be willing to be tracked for possible future inquiries. All respondents were given postcards that showed scenes of Michigan State University as a "thank you" gift. All Japanese faculty who assisted with the research were given Michigan State University Spartan key chains.

## Data Analysis

Both descriptive and inferential statistics were computed. Regression analyses were conducted to identify the protective factors and risk factors that were predictive of the youth's drug, tobacco and alcohol usage, sexual activity, internalizing behavior and delinquency. Frequencies were computed on all data for the total sample and then separately by gender. Correlations were computed among the protective variables, risk variables, and outcome variables; the correlations between the independent variables and outcome variables were also computed. Regression analyses were run for each outcome variable for the full sample and by gender. In the first analysis, all of the protective factors were used as predictor variables. Next, all of the risk factors were entered

together. Finally, protective factors and risk factors that were significantly related to the outcome in the preliminary regression analyses were entered together to determine the best set of predictors for the outcome.

In the next chapter, the results of the data analysis will be discussed. In the fifth chapter, the results will be discussed from a cultural perspective; in addition limitations of the study, implications of the research, and directions for future research are presented in the final chapter.

# Chapter IV

## RESULTS OF DATA ANALYSIS

In this chapter, the results of the data are reported. First, characteristics of the sample population are described and then demographic data are highlighted. Then, the bivariate analysis is reported, followed by the method of analysis used for the multivariate regression. Finally, using the results of the multivariate regression analysis, the data are discussed in the context of answering the research questions.

### Sample

The data were collected in the summer of 2002 in the greater Sapporo area of Hokkaido Japan. Sapporo is the fifth largest city in Japan. Sapporo is a thriving urban center surrounded by rural villages. The island of Hokkaido is the most recent area of Japan to be populated with the arrival of the first immigrants from central Japan approximately 150 years ago. Before that time, the Japanese believed Hokkaido to be uninhabitable in the winter. However, there is a small indigenous population native to Hokkaido called the Ainu, who survive today by selling handicrafts and fishing. Because their culture is so new in comparison to central Japan, they have created many festivals that reflect both the pioneer spirit of Hokkaido and the ancient customs of central Japan. Hokkaido's climate is similar to Michigan. It is known for its snowy winters, expansive breathtaking mountainous areas, and large fishing industry. Sapporo was host to the Winter Olympics in 1972, a fact that still fills the inhabitants with pride.

The total sample size was 816. However, during one survey session 14 surveys had been quickly completed and had been randomly answered in geometric patterns. Upon inquiring about their speed of completion, these respondents explained that they were keen on playing basketball together and did not want to spend the required time filling out the questionnaires. With the invalid surveys removed, the working sample size is 802.

## Demographic Information

To obtain a diverse and representative sample of post-secondary students in the Sapporo area, academic colleagues were asked to inquire if their colleagues who worked at area universities and colleges would be willing to allow us to come to their campuses to request that their students complete the surveys. Nine different post-secondary institutions invited us to their campuses (see Table 4). Many of these institutions were not accustomed to research being done at their campuses. Often lengthy discussions with school administrators were held prior to meeting with faculty and students, but eventually all the institutions consented. The institutions that agreed to our request for surveying their students were three vocational colleges (23.9% of the total respondents), two two-year colleges (41.8% of the total respondents) and four four-year universities (34.3% of the total respondents). Even though we were able to obtain high levels of completed surveys from vocational students, their institutions were often very small. Therefore, parity between the different types of institutions was not obtained.

The nine different institutions that agreed to participate were: Hokkaido University (a prestigious four-year university), two campuses of Hokkaido University of Education (a four-year teacher's university), Hokkaido Technical University (a four-year

science and engineering university), Hokkaido Asai Gakuen (a two-year public service university), Hokkaido Automotive Engineering College (a two-year technical college), Hokkaido YMCA Vocational College (a public service vocational college), Bigei Gakuen (a women's home economics vocational college),and Okhotsu Professional School of Social Welfare (a public service vocational college). Most respondents (73.6%) replied that the institution that they were attending was their first choice. Slightly fewer of those surveyed (66.4%) believed that their college or university was their parents' first choice for them.

**Table 4 Respondents Academic Affiliation**

| University/College | Type of Institution | Total Number of Students Enrolled | Number Surveyed (Female/Male) | Percent of Sample |
|---|---|---|---|---|
| Hokkaido University | 4 year | 17,433 | 88 total (40 F/ 48 M) | 11.1 |
| Hokkaido University of Education-Sapporo | 4-year | 1,200 | 20 total (17 F/ 3 M) | 2.5 |
| Hokkaido University of Education-Asahikawa | 4-year | 700 | 53 total (40 F/ 13 M) | 6.6 |
| Hokkaido Technical University | 4-year | 3800 | 113 total (24 F/ 89 M) | 14.1 |
| Hokkaido Asai Gakuen | 2-year | 3000 | 101 total (67 F/ 33M) | 12.7 |
| Hokkaido Automotive Engineering College | 2-year | 687 | 233 total (7 F/ 226 M) | 29.1 |
| Hokkaido YMCA Vocational College | Vocational | 70 | 59 total (27 F/ 32 M) | 7.4 |
| Bigei Gakuen | Vocational | 180 | 100 total (100 F/ 0 M) | 12.5 |
| Okhotsu Professional School of Social Welfare | Vocational | 65 | 32 total (17 F/ 15 M) | 4.0 |

The gender of the respondents was 42.5% female and 57.5% male. There were a greater number of male respondents due to the fact that there were fewer females enrolled in the schools that had the larger numbers of respondents. The age of those surveyed was from 18 to 22 years old. However, most respondents (90.6%) were between 18 and 20 years of age. The largest age group (43.4%) of respondents was 19.

Slightly over half (54.3%) of the respondents lived with their families. Less than ten percent (9.6%) lived in dormitories with the remainder living in apartments (35.7%) or with another family (.4%).

Nearly half (49.3%) of the respondents saw their mothers daily, though only 1.5% saw their fathers daily. The majority of the mothers of the respondents (52.3%) highest degree was a high school diploma. However 11.1% of mothers had post-secondary vocational education, 26.6% had obtained a college degree and .8% of the mothers had completed graduate work. The largest number (41.5%) of respondents' fathers' highest degree was a high school diploma. However, 7% of fathers had completed post-secondary vocational school, 34.9% had completed a college degree and 2.3% had obtained a graduate degree.

Most respondents (92.4%) had at least one sibling. Slightly over half of the respondents (50.9%) had only one sibling. The majority of those who had siblings (77.6%) had always lived with their siblings throughout childhood. Over two-thirds (70.1%) of the respondents had siblings who were within three years of their age and 10.9% had siblings within a year of their own age.

Under a tenth (7.8%) of the respondents acknowledged that their family has received public assistance and 4.8% are currently receiving public assistance.

## Bivariate Analysis

Pearson correlation matrices were created to determine the relationship among the protective factors (Table 5), risk factors (Table 6), outcome variables (Table 7) and finally between protective and outcome variables (Table 8) and risk factors and outcome variables (Table 9). Due to the large sample size, many of the variables were significantly correlated with each other. Using Cohen's (1988) interpretation of correlational power; a correlation greater than .5 is considered large, a correlation that ranges from .5 to .3 is considered moderate and a correlation of .3 to .1 is considered small; most variables had a small to moderate correlation. However, there were some notable relationships.

It was originally thought that collinearity might be a problem in the data due to the fact that all information is from the same respondents and that some of the variables are conceptually related to each other. However, a collinearity diagnostic was run that showed that the variables had a high tolerance and no foreseeable problems.

### *Correlations Among Protective Factor Variables*

Among the internal protective factors, the only large correlation was that the respondents who had a stronger personal myth were also more optimistic (.50). Within the peer microsystem, youth who had a larger social network also had greater social capital (.64). Within the neighborhood microsystem, respondents who experienced a greater sense of community also were more likely to experience collective efficacy in their neighborhood (.64). Among the family microsystem variables, youth who had a stronger sense of family belonging were more likely to feel that their parents imparted values to them (.55). Furthermore, youth who had a strong sense of family belonging

reported a stronger maternal relationship (.46). Respondents who had a stronger maternal relationship also felt that their parents had imparted more values to them (.45). Furthermore, youth who had a stronger maternal relationship also had a stronger paternal relationship (.47).

*Correlations Among Risk Factor Variables*

Respondents who had a history of physical illness were also more likely to have a history of physical abuse (.45). Furthermore, youth who had a history of physical illness were more likely to express confusion over their sexual orientation (.46). Youth who had a history of physical abuse were also more likely to communicate confusion regarding sexual orientation (.48). Respondents who had a history of sexual abuse were also more likely to be involved in Enjo Kosai (.54). Furthermore, youth who had a history of sexual abuse were more likely to believe that their mothers were involved in Terekura (.56). Respondents who had a stronger belief that the neighborhood was not safe were more likely to embrace Hip Hop culture (.46).

*Correlations Among Outcome Variables*

There were no large correlations between the outcome variables with the exception of age of sexual activity and age of sexual intercourse (.92). It was originally planned to use two different measures of sexual activity, one that includes oral sex and other sexual behaviors and one that only measures sexual intercourse. However, these seem to be very similar. The removal of one of these variables was discussed, but after analyzing the regression equations there were some subtle but very interesting differences between these outcome variables. Therefore, both outcomes are included in subsequent analyses.

**Table 5A Pearson Correlation Matrix of Protective Factors**

| | Autonomy | Self Efficacy | Personal Myth | Optimism | Sense of Humor | Temperament | Physical Beauty | Moral Development | Mental Flexibility | Emotional Intelligence | Spirituality | Perceive Social Support | Partner Relationship |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Autonomy | 1.0 | .13** | .26** | .15** | .03 | -.03 | .01 | .25** | .20** | .21** | -.03 | .08* | .10** |
| Self Efficacy | .13** | 1.0 | .34** | .34** | .41** | .03 | .32** | .33** | .40** | .37** | .18** | .07* | .21** |
| Personal Myth | .26** | .34** | 1.0 | .496** | .28** | .109** | .11** | .23** | .28** | .34** | .12** | -.12** | .26** |
| Optimism | .15** | .34** | .50** | 1.0 | .34** | -.01 | .17** | .13** | .27** | .20** | .20** | .01 | .17** |
| Sense of Humor | .03 | .41** | .28** | .34** | 1.0 | .02 | .45** | .13** | .42** | .35** | .30** | .13* | .18** |
| Temperament | -.03 | .03 | .11** | -.01 | .02 | 1.0 | -.12** | -.10** | .09* | .13** | -.15** | -.32** | .06 |
| Physical Beauty | .01 | .32** | .11** | .17** | .45** | -.12** | 1.0 | .08* | .22** | .17** | .25** | .17** | .12** |
| Moral Development | .25** | .33** | .23** | .13** | .13** | -.10** | .08* | 1.0 | .31** | .33** | .12** | .08** | .14** |
| Mental Flexibility | .20** | .40** | .28** | .27** | .42** | .09* | .22** | .31** | 1.0 | .41** | .17** | .06 | .16** |
| Emotional Intelligence | .21** | .37** | .34** | .20** | .35** | .13** | .17** | .33** | .41** | 1.0 | .10** | -.06 | .24** |
| Spirituality | -.03 | .18** | .12** | .20** | .30** | -.15** | .25** | .12** | .17** | .10** | 1.0 | .19** | .08* |
| Perceive Social Support | .08* | .07* | -.12** | .01 | .13** | -.32** | .17** | .08* | .06 | -.06 | .19** | 1.0 | -.05 |

Correlation is significant at the .01 level** (two-tailed)
Correlation is significant at the .05 level * (two-tailed)

**Table 5B Pearson Correlation Matrix of Protective Factors**

| | Social Network | Supportive Friends | Sense of Community | Collective Efficacy | Social Capital | School Belonging | School Mentor | Family Belonging | Parental Marriage | Parental Values | Family Economic Stability | Paternal Relationship | Maternal Relationship |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Autonomy | .09* | .04 | .09* | .12** | .07 | .09* | .13** | .15** | .06 | .22** | .02 | .03 | .13** |
| Self Efficacy | .24** | .14** | .33** | .30** | .23** | .32** | .168** | .25** | .21** | .32** | .15** | .12** | .18** |
| Personal Myth | .24** | .31** | .25** | .21** | .22** | .27** | .24** | .32** | .24** | .37** | .07 | .27** | .38** |
| Optimism | .19** | .23** | .21** | .20** | .15** | .26** | .22** | .25** | .24** | .21** | .07 | .20** | .25** |
| Sense of Humor | .23** | .14** | .30** | .31** | .24** | .32** | .16** | .28** | .14** | .17** | .25** | .11** | .12** |
| Temperament | .03 | .22** | -.02 | -.07 | .10** | -.01 | -.03 | -.01 | .07* | .03 | -.05 | .10** | .07 |
| Physical Beauty | .13** | .00 | .17** | .18** | .19** | .20** | .12** | .12** | .08* | .03 | .27** | .06 | .10** |
| Moral Development | .08* | .10** | .26** | .25** | .05 | .22** | .18** | .33** | .20** | .40** | .13** | .14** | .23** |
| Mental Flexibility | .15** | .10** | .24** | .22** | .16** | .23** | .13** | .23** | .18** | .27** | .19** | .09* | .18** |
| Emotional Intelligence | .27** | .27** | .32** | .23** | .26** | .29** | .15** | .32** | .24** | .38** | .15** | .17** | .27** |
| Spirituality | .04 | -.04 | .164** | .16** | .09* | .22** | .15** | .16** | .05 | .08* | .07 | .10** | .08* |
| Perceive Social Support | -.17** | -.32** | -.03 | .07 | -.12 | .10** | -.04 | -.03 | -.04 | -.09* | .06 | -.09* | -.14** |

Correlation is significant at the .01 level** (two-tailed)
Correlation is significant at the .05 level * (two-tailed)

**Table 5C Pearson Correlation Matrix of Protective Factors**

| | Social Network | Supportive Friends | Sense of Community | Collective Efficacy | Social Capital | School Belonging | School Mentor | Family Belonging | Parental Marriage | Parental Values | Family Economic Stability | Paternal Relationship | Maternal Relationship |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Partner Relationship | .22** | .21** | .23** | .22** | .20** | .17** | .07 | .20** | .16** | .21** | .07* | .12** | .19** |
| Social Network | 1.0 | .321** | .23** | .16** | .64** | .18** | .13** | .26** | .17** | .22** | .14** | .12** | .21** |
| Supportive Friends | .32** | 1.0 | .17** | .11** | .27** | .14** | .02 | .19** | .15** | .25** | .03 | .15** | .30** |
| Sense of Community | .23** | .17** | 1.0 | .64** | .21** | .33** | .17** | .33** | .21** | .31** | .12** | .24** | .25** |
| Collective Efficacy | .16** | .11** | .64** | 1.0 | .19** | .35** | .17** | .31** | .26** | .28** | .16** | .22** | .21** |
| Social Capital | .64** | .27** | .21** | .19** | 1.0 | .23** | .19** | .19** | .16** | .12** | .11** | .17** | .22** |
| School Belonging | .18** | .138** | .327** | .35** | .23** | 1.0 | .34** | .29** | .23** | .24** | .09* | .24** | .23** |
| School Mentor | .13** | .020 | .174** | .17** | .19** | .34** | 1.0 | .19** | .12** | .18** | -.03 | .14** | .17** |
| Family Belonging | .26** | .19** | .33** | .31** | 19** | .29** | .19** | 1.0 | .44** | .55** | .15** | .33** | .46** |
| Parental Marriage | .17** | .15** | .211** | .26** | .16** | .230** | .12** | .44** | 1.0 | .38** | .20** | .43** | .34** |
| Parental Values | .22** | .25** | .31** | .28** | .12** | .24** | .18** | .55** | .38** | 1.0 | .11** | .28** | .45** |
| Family Economic Stability | .14** | .03 | .12** | .16** | .11** | .09* | -.03 | .15** | .20** | .11** | 1.0 | .15** | .12** |
| Paternal Relationship | .12** | .15** | .24** | .22** | .17** | .24** | .14** | .33** | .43** | .28** | .15** | 1.0 | .47** |
| Maternal Relationship | .21** | .30** | .25** | .21** | .22** | .23** | .17** | .46** | .34** | .45** | .12** | .47** | 1.0 |

Correlation is significant at the .01 level** (two-tailed)
Correlation is significant at the .05 level * (two-tailed)

**Table 5D Pearson Correlation Matrix of Protective Factors**

| | Autonomy | Self Efficacy | Personal Myth | Optimism | Sense of Humor | Temperament | Physical Beauty | Moral Development | Mental Flexibility | Emotional Intelligence | Spirituality | Perceive Social Support | Partner Relationship |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Partner Relationship | .10** | .21** | .20** | .17** | .18** | .06 | .12** | .14** | .16** | .24** | .08* | -.05 | 1.0 |
| Social Network | .09* | .24** | .24** | .19** | .23** | .03 | .13** | .08* | .15** | .27** | .04 | -.17** | .22** |
| Supportive Friends | .04 | .14** | .31** | .23** | .14** | .22** | .00 | .10** | .10** | .27** | -.04 | -.32** | .21** |
| Sense of Community | .09* | .33** | .25** | .21** | .30** | -.02 | .17** | .26** | .24** | .32** | .16** | -.03 | .23** |
| Collective Efficacy | .12** | .30** | .21** | .20** | .31** | -.07 | .18** | .25** | .22** | .23** | .16** | .07 | .22** |
| Social Capital | .07 | .23** | .23** | .15** | .24** | .10** | .19** | .05 | .16** | .26** | .09* | -.12** | .20** |
| School Belonging | .09* | .32** | .27** | .26** | .32** | -.01 | .30** | .22** | .23** | .29** | .22** | .10** | .17** |
| School Mentor | .13** | .17** | .24** | .22** | .16** | -.03 | .12** | .18** | .13** | .15** | .15** | -.04 | .07 |
| Family Belonging | .15** | .25** | .32** | .25** | .22** | -.01 | .12** | .33** | .23** | .32** | .16** | -.03 | .20** |
| Parental Marriage | .06 | .21** | .24** | .24** | .14** | .07* | .08** | .20** | .18** | .24** | .05 | -.04 | .16** |
| Parental Values | .22** | .32** | .37** | .21** | .17** | .03 | .03 | .40** | .27** | .38** | .08* | -.09* | .21** |
| Family Economic Stability | .02 | .15** | .07 | .07 | .25** | -.05 | .27** | .13** | .19** | .15** | .07 | .06 | .07* |
| Paternal Relationship | .03 | .12** | .27** | .20** | .11** | .10** | .06 | .14** | .09* | .17** | .10* | -.09* | .12** |
| Maternal Relationship | .13** | .18** | .38** | .25** | .12** | .07 | .10** | .23** | .18** | .27** | .08* | -.14** | .19** |

Correlation is significant at the .01 level** (two-tailed)
Correlation is significant at the .05 level * (two-tailed)

**Table 6A Pearson Correlation Matrix of Risk Factors**

| | Physical Illness | Undervalued Due to Gender | History of Physical Abuse | History of Sexual Abuse | Enjo Kosai | Confusion over Sexual Orientation | Neighborhood Not Safe | Bullied | Parental Depression | Domestic Violence Witnessed | Personality Difference with Parents | Parents Lack Social Support | Parents Use Alcohol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Physical Illness | 1.0 | .17** | .45** | .25** | .23** | .46** | .26** | .15** | .22** | .13** | .30** | .02 | .26** |
| Undervalued Due to Gender | .17** | 1.0 | .22** | .33** | .38** | .15** | .21** | .29** | .18** | .29** | .21** | .01 | .20** |
| History of Physical Abuse | .45** | .22** | 1.0 | .28** | .33** | .48** | .35** | .13** | .35** | .26** | .40** | .07 | .32** |
| History of Sexual Abuse | .25** | .33** | .28** | 1.0 | .54** | .25** | .32** | .23** | .16** | .36** | .14** | -.05 | .16** |
| Enjo Kosai | .23** | .38** | .33** | .54** | 1.0 | .28** | .33** | .24** | .18** | .29** | .22** | -.03 | .20** |
| Confusion over Sexual Orientation | .46** | .15** | .48** | .25** | .28** | 1.0 | .32** | .12** | .23** | .16** | .27** | -.00 | .35** |
| Neighborhood Not Safe | .26** | .21** | .35** | .32** | .33** | .32** | 1.0 | .03 | .28** | .16** | .23** | -.03 | .25** |
| Bullied | .15** | .29** | .13** | .23** | .24** | .12** | .03 | 1.0 | .10* | .25** | .15** | .07 | .08* |
| Parental Depression | .22** | .18** | .35** | .16** | .18** | .23** | .28** | .10* | 1.0 | .18** | .21** | -.09* | .26** |
| Domestic Violence Witnessed | .13** | .29** | .26** | .36** | .29** | .16** | .16** | .25** | .18** | 1.0 | .16** | .09* | .17** |
| Personality Difference with Parents | .30** | .21** | .40** | .14** | .22** | .27** | .23** | .15** | .21** | .16** | 1.0 | .20** | .28** |
| Parents Lack Social Support | .02 | .01 | .07 | -.05 | -.03 | -.00 | -.03 | .07 | -.09* | .09* | .20** | 1.0 | -.02 |
| Parents Use Alcohol | .26 | .20 | .32** | .16** | .20** | .35** | .25** | .08* | .26** | .17** | .28** | -.02 | 1.0 |

Correlation is significant at the .01 level** (two-tailed)
Correlation is significant at the .05 level * (two-tailed)

**Table 6B Pearson Correlation Matrix of Risk Factors**

| | Parents Not Aware | Parents Not Around | Parental Favoritism of Sibling | Believe Mom is Involved in Terekura | Believe Dad visits Fuzuko | Parent Gambles | Frequency of Moving | Hip Hop Culture | View Violence/ Sex on TV |
|---|---|---|---|---|---|---|---|---|---|
| Physical Illness | .18** | .15** | .32** | .29** | .14** | .44** | .01 | .25** | .18** |
| Undervalued Due to Gender | .16** | .05 | .20** | .33** | .27** | .19** | .08* | .16** | .11** |
| History of Physical Abuse | .32** | .18** | .44** | .34** | .15** | .44** | .02 | .30** | .26** |
| History of Sexual Abuse | .22** | .11** | .23** | .56** | .29** | .35** | .13** | .19** | .12** |
| Enjo Kosai | .22** | .12** | .25** | .51** | .28** | .37** | .14** | .23** | .19** |
| Confusion over Sexual Orientation | .24** | .05 | .38** | .30** | .15** | .43** | .01 | .29** | .24** |
| Neighborhood Not Safe | .22** | .10** | .31** | .29** | .26** | .38** | .05 | .46** | .35** |
| Bullied | .06 | -.02 | .12** | .21** | .09* | .09* | .16** | -.03 | .06 |
| Parental Depression | .31** | -.02 | .33** | .16** | .19** | .26** | .11** | .21** | .26** |
| Domestic Violence Witnessed | .16** | .08* | .17** | .42** | .33** | .25** | .13** | .08* | .04 |
| Personality Difference with Parents | .35** | .21** | .29** | .18** | .17** | .31** | .02 | .25** | .18** |
| Parents Lack Social Support | -.01 | .41** | .01 | .02 | .01 | .07 | -.05 | -.08* | -.10** |
| Parents Use Alcohol | .24** | .10** | .38** | .29** | .17** | .42** | .04 | .26** | .25** |

Correlation is significant at the .01 level** (two-tailed)
Correlation is significant at the .05 level * (two-tailed)

**Table 6C Pearson Correlation Matrix of Risk Factors**

| | Physical Illness | Undervalued Due to Gender | History of Physical Abuse | History of Sexual Abuse | Enjo Kosai | Confusion over Sexual Orientation | Neighborhood Not Safe | Bullied | Parental Depression | Domestic Violence Witnessed | Personality Difference with Parents | Parents Lack Social Support | Parents Use Alcohol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parent Not Aware | .18** | .16** | .32** | .22** | .22** | .24** | .22** | .06 | .31** | .16** | .35** | -.01 | .24** |
| Parent Not Around | .15** | .05 | .18** | .11** | .12** | .05 | .10** | -.02 | -.02 | .08* | .21** | .41** | .10** |
| Parental Favoritism of Sibling | .32** | .20** | .44** | .23** | .25** | .38** | .31** | .12** | .33** | .17** | .29** | .01 | .38** |
| Believe Mom involved in Terekura | .29** | .33** | .34** | .56** | .51** | .30** | .29** | .21** | .16** | .42** | .18** | .02 | .29** |
| Believe Dad Visits Fuzuko | .14** | .27** | .15** | .29** | .28** | .15** | .26** | .09* | .19** | .33** | .17** | .01 | .17** |
| Parent Gambles | .44** | .19** | .44** | .35** | .37** | .43** | .38** | .09* | .26** | .25** | .31** | .07 | .42** |
| Frequency of Moving | .01 | .08* | .02 | .13** | .14** | .01 | .05 | .16** | .11** | .13** | .02 | -.05 | .04 |
| Hip Hop Culture | .25** | .16** | .30** | .19** | .23** | .29** | .46** | -.03 | .21** | .08* | .25** | -.08* | .26** |
| View Violence/ Sex on TV | .18** | .11** | .26** | .12** | .19** | .24** | .35** | .06 | .26** | .04 | .18** | -.10** | .25** |

Correlation is significant at the .01 level** (two-tailed)
Correlation is significant at the .05 level * (two-tailed)

**Table 6D Pearson Correlation Matrix of Risk Factors**

| | Parent Not Aware | Parents Not Around | Parental Favoritism of Sibling | Believe Mom involved in Terekura | Believe Dad Visits Fuzuko | Parent Gambles | Frequency of Moving | Hip Hop Culture | View Violence/ Sex on TV |
|---|---|---|---|---|---|---|---|---|---|
| Parents Not Aware | 1.0 | .06 | .24** | .13** | .17** | .18** | .05 | .19** | .21** |
| Parents Not Around | .06 | 1.0 | .12** | .16** | .13** | .19** | .03 | .03 | -.09* |
| Parental Favoritism of Sibling | .24** | .12** | 1.0 | .30** | .19** | .40** | .02 | .33** | .26** |
| Believe Mom involved in Terekura | .13** | .16** | .30** | 1.0 | .35** | .42** | .11** | .17** | .16** |
| Believe Dad Visits Fuzuko | .17** | .13** | .19** | .35** | 1.0 | .25** | .15** | .17** | .12** |
| Parent Gambles | .18** | .19** | .40** | .42** | .25** | 1.0 | -.02 | .36** | .20** |
| Frequency of Moving | .05 | .03 | .02 | .11** | .15** | -.02 | 1.0 | -.01 | .02** |
| Hip Hop Culture | .19** | .03 | .33** | .17** | .17** | .36** | -.01 | 1.0 | .24** |
| View Violence/ Sex on TV | .21** | -.09* | .26** | .16** | .12** | .20** | .02 | .24** | 1.0 |

Correlation is significant at the .01 level** (two-tailed)
Correlation is significant at the .05 level * (two-tailed)

**Table 7 Pearson Correlation Matrix of Outcome Variables**

| | Alcohol Use | Tobacco Use | Drug Use | Age of Sexual Intercourse | Age of Sexual Activity | Delinquency | Internalizing Behaviors |
|---|---|---|---|---|---|---|---|
| Alcohol Use | 1.0 | .28** | .12** | .26** | .29** | .28** | .06 |
| Tobacco Use | .28** | 1.0 | .15** | .32** | .37** | .43** | .12** |
| Drug Use | .12** | .15** | 1.0 | .16** | .18** | .41** | .32** |
| Age of Sexual Intercourse | .26** | .32** | .16** | 1.0 | .92** | .39** | .08* |
| Age of Sexual Activity | .29** | .37** | .18** | .92** | 1.0 | .44** | .10** |
| Delinquency | .28** | .43** | .41** | .39** | .44** | 1.0 | .25** |
| Internalizing Behaviors | .07 | .12** | .32** | .08* | .10** | .25** | 1.0 |

Correlation is significant at the .01 level** (two-tailed)
Correlation is significant at the .05 level * (two-tailed)

*Correlations Between Protective and Risk Variables and the Outcome Variables*

There were three outcome variables, internalizing behavior, delinquency and drug use that had strong correlations to particular variables. Each of these will be discussed separately. The other outcome variables were not strongly correlated with any of the risk or protective factors.

*Internalizing Behavior.* Youth who had high internalizing behaviors problem scores were more likely to have a history of physical abuse (.55). Respondents who reported more internalizing behavior problems were also more likely to express confusion over sexual orientation (.49). Youth who experienced internalizing behavior problems more often articulated parental depression (.49). Furthermore, respondents who had high internalizing behaviors problem scores also perceived parental favoritism of a sibling (.49).

**Table 8 Pearson Correlations Between Protective Factors and Outcome Variables**

| | Internalizing Behavior | Delinquency | Tobacco Use | Alcohol Use | Drug Use | Age of Sexual Activity | Intercourse Age |
|---|---|---|---|---|---|---|---|
| **Internal** | | | | | | | |
| Autonomy | .11** | -.06 | -.06 | .02 | -.02 | -.04 | -.06 |
| Self Efficacy | .11** | .10* | .08* | .06 | .05 | .06 | .07 |
| Personal Myth | -.06 | -.05 | -.02 | .02 | -.05 | -.07 | -.07 |
| Optimism | .03 | .01 | .04 | .07 | .02 | -.01 | -.01 |
| Sense of Humor | .07 | .20** | .17** | .20** | .10* | .18** | .16** |
| Temperament | -.34** | -.07 | -.04 | -.05 | -.17** | -.01 | -.02 |
| Physical Beauty | .09* | .19** | .06 | .13** | .18** | .19** | .18** |
| Moral Development | .14** | -.12** | -.06 | -.04 | -.01 | -.14** | -.10** |
| Mental Flexibility | .06 | .04 | -.01 | .07 | .01 | .00 | .02 |
| Emotional Intelligence | -.11** | -.06 | -.10* | .07 | -.03 | -.04 | -.05 |
| Spirituality | .31** | .17** | .13** | .07 | .21** | .07 | .05 |
| Perceive Social Support | .35** | .10** | .07 | .05 | .17** | .09* | .10** |
| **Peer Microsystem** | | | | | | | |
| Partner Relationship | .03 | .04 | .05 | .10** | .03 | .20** | .13** |
| Social Network | -.06 | .05 | .03 | .22** | .02 | .07 | .04 |
| Supportive Friends | -.24** | -.08* | -.09* | .06 | -.12** | -.06 | -.08* |
| **Neighborhood Microsystem** | | | | | | | |
| Sense of Community | .01 | .02 | .03 | .08* | .02 | .01 | .01 |
| Collective Efficacy | .11** | .05 | .05 | .07 | .03 | .02 | .01 |
| Social Capital | -.01 | .08* | .05 | .16** | .05 | .09* | .07 |
| **School Microsystem** | | | | | | | |
| School Belonging | .10** | -.01 | -.03 | .05 | .13** | .01 | .01 |
| School Mentor | .10** | -.03 | .03 | -.00 | .09* | .02 | .01 |
| **Family Microsystem** | | | | | | | |
| Family Belonging | .02 | -.07 | -.07* | -.01 | .00 | -.09* | -.10 |
| Parental Marriage | -.06 | -.05 | -.06 | -.00 | -.01 | -.00 | -.01 |
| Parental Values | -.08* | -.09* | -.06 | -.04 | -.07 | -.11** | -.11** |
| Family Economic Stability | -.01 | .04 | -.05 | .07 | .01 | .05 | .03 |
| Paternal Relationship | -.03 | -.04 | .02 | .03 | .05 | -.04 | -.05 |
| Maternal Relationship | -.07 | -.14** | -.08* | .03 | -.05 | -.09* | -.09* |

Correlation is significant at the .01 level** (two-tailed), Correlation is significant at the .05 level * (two-tailed)

**Table 9 Pearson Correlations between Risk Factors and Outcome Variables**

| | Internalizing Behavior | Delinquency | Tobacco Use | Alcohol Use | Drug Use | Age of Sexual Activity | Intercourse Age |
|---|---|---|---|---|---|---|---|
| Developmental History | | | | | | | |
| Physical Illness | .43** | .20** | .10** | .07 | .37** | .13** | .11** |
| Undervalued Due to Gender | .25** | .25** | .01 | .09* | .28** | .12** | .12** |
| History of Physical Abuse | .55** | .34** | .19** | .15** | .40** | .20** | .17** |
| History of Sexual Abuse | .28** | .36** | .14** | .11** | .49** | .30** | .23** |
| Enjo Kosai | .32** | .35** | .10* | .09* | .53** | .19** | .14** |
| Confusion over Sexual Orientation | .49** | .24** | .10** | .12** | .38** | .08* | .05 |
| **Neighborhood Microsystem** | | | | | | | |
| Not Safe | .33** | .55** | .34** | .28** | .41** | .34** | .28** |
| **School Microsystem** | | | | | | | |
| Bullied | .26** | .09* | -.07 | -.04 | .16** | -.02 | -.00 |
| **Family Microsystem** | | | | | | | |
| Parental Depression | .49** | .19** | .08* | .11** | .19** | .05 | .06 |
| Domestic Violence Witnessed | .18** | .32** | .07 | .04 | .34** | .13** | .12** |
| Personality Differences with Parents | .40** | .18** | .13** | .09* | .21** | .15** | .14** |
| Parents Lack Social Support | .02 | .04 | .05 | -.05 | .01 | .06 | .07 |
| Parents Use Alcohol | .38** | .19** | .12** | .14** | .27** | .10** | .11** |
| Parents Not Aware | .44** | .19** | .13** | .10** | .21** | .14** | .10** |
| Parents Not Around | .07 | .15** | .11** | -.01 | .19** | .22** | .19** |
| Parental Favoritism of Sibling | .49** | .26** | .12** | .11** | .30** | .12** | .10** |
| Believe Mom involved in Terekura | .30** | .40** | .10** | .03 | .64** | .19** | .18** |
| Believe Dad Visits Fuzuko | .19** | .39** | .14** | .08* | .31** | .23** | .22** |
| Parent Gambles | .41** | .30** | .19** | .15** | .46** | .15** | .15** |
| Frequency of Moving | .08* | .10** | -.06 | .03 | .11** | -.00 | .01 |
| Home is Small | .39** | .19** | .10** | .06 | .27** | .07 | .06 |
| **Media Influences** | | | | | | | |
| Hip Hop Culture | .29** | .33** | .22** | .23** | .25** | .23** | .18** |
| View Violence/ Sex on TV | .33** | .35** | .25** | .20** | .20** | .18** | .18** |

Correlation is significant at the .01 level** (two-tailed), Correlation is significant at the .05 level * (two-tailed)

*Delinquency*. Respondents who had high delinquency scores were more likely to live in neighborhoods that were not safe (.55). High levels of delinquency were associated with the belief that their mothers were involved in Terekura (.40). Drug Use. Respondents who had increased drug use were more likely to have a history of sexual abuse (.49). Youth who had heightened levels of drug use were also more likely to be involved in Enjo Kosai (.53). Furthermore, respondents who were using more drugs were also more likely to believe that their mothers were involved in Terekura (.64). Youth who used drugs were also more likely to have parents who gambled (.46).

## Multivariate Regression Analysis

### *Method of Analysis*

Having examined the bivariate relationships, the multivariate relationships were the next to be scrutinized. The multivariate regression analysis was done in stages. First, the protective factor variables were regressed upon each outcome variable for the entire sample and then separately by each gender (Tables 10- 16). Then the risk factor variables were regressed upon each outcome variable for the entire sample and then separately by each gender (Tables 17- 23). Upon reviewing the output of the preliminary regression analyses, those risk and protective factors that that were predictive of each outcome (beta coefficients with a p value of .05 or less) were entered together to determine which factors were related to the outcome when other factors were controlled. These equations were again run for the full sample and then by gender (Tables 24-30). A table (31) was created that highlighted the protective and risk factors that had a significant relation with each outcome variable by full sample and gender. Finally, a table (32) was created to show the best regression equation for each outcome variable by full sample and gender.

Each of the best fitting regression equations will be discussed by responding to the specific research questions. The tables presenting the results of the regression analyses are included at the end of this chapter.

## Using the Data to Answer the Research Questions

### *Research Question #1- Protective Factors*

Do the protective factors that have been shown to be important to the development of North American, European, and Australian youth positively impact the development of Japanese youth?

There seem to be many "western" protective factors that support positive development in Japanese youth. In general, the internal protective factors seem to be of greater influence than the environmental factors. However, there are some notable exceptions.

The internal protective variables of autonomy, self-efficacy, personal myth, sense of humor, easy temperament, moral development and emotional intelligence were significantly related to at least one outcome variable. A low level of autonomy was associated with female sexual activity and younger age of first intercourse. Interestingly, for males, a high level of autonomy was related to sexual activity. High self-efficacy was linked to internalizing behavior problems. A lack of a personal myth was related to female sexual activity and a younger age of first intercourse. A greater sense of humor was associated with tobacco use in males, alcohol use in the full sample, sexual activity in females and younger age of first intercourse for females. A low score on the variable easy temperament was related to both internalizing behaviors and drug use. Low moral development was linked to delinquent behavior and sexual activity in the full sample and

male sample. However, high moral development was related to internalizing behaviors in the full sample and the male sample. Low emotional intelligence was linked to internalizing behaviors and tobacco use in the full and male sample.

The peer microsystem protective factor variables of partner relationship, social network and supportive friends were related to some of the outcome variables. A supportive partner relationship was related to an increased risk for sexual activity and earlier first intercourse age in the full, female and male sample. A larger social network was associated with alcohol use in the full, female and male sample. These findings are similar to those reported in western studies. A lack of supportive friendships was related to internalizing behavior problems in males and tobacco use in females. There were no neighborhood protective variables that were significantly related to the outcome variables. There was only one school microsystem protective variable that was significant in any model; a lack of a school mentor was associated with female alcohol use.

The family microsystem protective factor variables of parental values, familial economic stability and maternal relationship were related to at least one outcome variable. A low score on parent imparting values was associated with internalizing behaviors in females and alcohol use in the full, female and male sample. Perhaps the insight that one's parents did not model or promote values was troubling. The lack of family economic stability was related to tobacco usage. A relatively unsupportive maternal relationship was linked to delinquency in males, which is similar to U.S. findings.

*Research Question #2- Risk Factors*

Do the risk factors that have been shown to negatively impact the development of North American, European, and Australian youth impact the development of Japanese youth?

Several western risk factors are strongly related to the outcomes of interest. All of the developmental risk factors had a significant impact on at least one outcome variable. An unsafe neighborhood was significantly related to six of the seven outcome variables, with the exception being internalizing behavior. The school risk of being bullied predicted internalizing behavior. All of the family microsystem risk factors were related to at least one outcome variable with the exception of personality differences with parents.

Even more surprising was the prevalence of some of the Japanese risk factors. It was originally considered that these risk factors may not be very prevalent but were sensationalized due to the Japanese media's penchant for reporting titillating, but not very factual information. However, regarding Enjo Kosai, schoolgirl prostitution, it was found that not only schoolgirls, but also schoolboys had been involved. Nearly ten percent (9.5%) of the male sample reported having had at least one Enjo kosai experience, as well as, 4.3% of the female sample. Furthermore, 28.3% of the male sample and 18.6% of female sample believed that their father had been to a Fuzoku (brothel). Over ten percent (10.9%) of the male sample and 1.8% of the female sample believed that their mother was involved with Terekura (telephone sex). Even if these sexual behaviors were over-reported in the male sample and underreported in the female sample, which is often the case in U.S. surveys of adolescent sexual behavior, these numbers are sizeable. Interestingly, the only question that was not uniformly answered was the question

regarding the number of sexual partners; 51.8% of females and 39.1% of males chose not to answer this question. It may be attributed to the fact that the largest possible response was ten or more partners. Perhaps if the largest possible response was increased, then the respondents would not feel that the number of partners that they had had was outside of the normal range; this seems to be in keeping with Japanese sensibilities.

The majority of the respondents also reported that their parents gambled (60.8% of males and 53.5% of females). Gambling is often discussed in the popular press as a social problem, though it is available in almost every neighborhood. Pachinko parlors are open 24 hours and are continually modernizing and updating the games, sounds, lights and atmosphere of the establishment. It is often reported in the popular press that individuals have entered Pachinko parlors and have not reemerged for hours or even days, neglecting family, work and appointments.

These Japanese risk factors also were predictive of the outcome variables. Involvement in Enjo Kosai was associated with drug use in the full, female and male sample and with female internalizing behavior. Having a father that patronized brothels was related to delinquency in the male sample and full sample, and to sexual activity and early intercourse age in the full sample and female sample. Having a mother that was involved in Terekura was associated with female internalizing behavior. Furthermore, a high score on the Terekura variable was related to delinquency and drug use in the full sample, and female and male samples. However, a low score on the Terekura variable was related to alcohol use in the full and female sample. Parental gambling was linked to drug use in the female sample.

*Research Question #3- Internalizing Behavior*

Is there a relationship between the protective and risk factors that the Japanese youth possess individually or in their environment and internalizing behavior?

The risk and protective factors were very useful for predicting internalizing behaviors in Japanese youth. The total variation explained by the model (r square) was .62 for the full sample, .57 for the female sample and .65 for the male sample. The F value to test the null hypothesis was 71.10 for the full sample, 26.29 for the female sample and 60.90 for the male sample. All were significant at the .001 level.

The protective factor variables that were predictive of internalizing behavior in the full sample were a low score on the variable easy temperament, low emotional intelligence, high self-efficacy, and high moral development. The protective factor variables that were associated with internalizing behaviors in the female sample were high self-efficacy, a low score on the variable easy temperament, and a lack of values imparted by parents. The protective factors that were predictive of internalizing behavior in the male sample were moral development, low emotional intelligence, and a lack of supportive friends. It is somewhat surprising that high levels of self-efficacy and moral development were associated with internalizing behaviors. Perhaps it is the frequent contemplation of these issues as an adolescent that contributes to internalizing behavior.

The risk factor variables that were significant predictors of internalizing behaviors in the full sample were physical illness, a history of physical abuse, confusion over sexual orientation, infrequent alcohol use, being bullied, parental depression, witnessing domestic violence, parents not aware of the respondents' actions, parental favoritism of a sibling, moving frequently and having a home that is too small. The risk factor variables that were predictive of internalizing behaviors in the female sample were physical illness,

involvement in Enjo Kosai, confusion over sexual orientation, being bullied, parental depression, parents not aware of respondent's actions, parental favoritism of sibling, having a mother who is involved in Terekura, and moving frequently. The risk factor variables that were predictive of internalizing behavior in the male sample were experiencing physical illness, a history of physical abuse, confusion over sexual orientation, being bullied, parental depression, witnessing domestic violence, parents not aware of respondent's actions, living in a home that is too small, and viewing sex and violence on television.

Many of these risk factors also influence the individual's sense of acceptance, importance and worth. Fundamental to adolescent development is a sense of self-identity and group identity with a strong family base from which to launch. Many of these risks undermine the ability to create an authentic identity especially when the familial structure has not nurtured the individual's development and the peer microsystem has bullied them or rebuffed their friendship. It seems logical then that with the presence of this constellation of risk and protective factors that internalizing behavior may occur.

*Research Question #4- Delinquency*

Is there a relationship between the protective and risk factors that the Japanese youth possess individually or in their environment and delinquency?

The risk and protective factors were very useful for predicting delinquency in Japanese youth. The total variation explained by the model (r square) was .46 for the full sample, .38 for the female sample and .51 for the male sample. The F value to test the null hypothesis for the full sample was 71.02, 40.92 for the female sample and 36.11 for the male sample. All were significant at the .001 level.

The protective factor variables that were the predictors of delinquency for the full sample and the male sample were low moral development and lacking a strong maternal relationship. There were no protective factor variables that predicted this outcome in the female sample.

The risk factor variables that were significant predictors of delinquency for the full sample were alcohol use, living in a neighborhood that was not safe, witnessing domestic violence, a lack of parental social support, infrequent parental use of alcohol, having a mother who was involved in Terekura, having a father who visited Fuzoku, and viewing violence and sex on television. The risk factors that were predictive of delinquency in the female sample were living in an unsafe neighborhood, witnessing domestic violence, having a mother who was involved in Terekura, and viewing violence and sex on television. The risk factors that were predictive of delinquency for the male sample were alcohol use, living in an unsafe neighborhood, witnessing domestic violence, having parents who did not use alcohol, having a mother who was involved in Terekura, having a father who visited Fuzoku, moving frequently, embracing Hip Hop culture and viewing violence and sex on television.

The absence of a strong maternal relationship combined with the awareness of deviant sexual behaviors of their parents seemed to contribute to delinquent behavior in the full and male sample. The lack of neighborhood safety was a predictor for delinquency in all samples. Becoming socialized to the idea that violence is a normative behavior might also predict delinquency; the respondents who had witnessed domestic violence, viewed a large amount of violence and sex on television and had low levels of moral development engaged in more delinquent behavior. The modeling of Hip Hop

Culture is related to delinquency as well. Hip Hop culture has been meticulously copied from U.S. prototypes by many male Japanese youth. The lack of inhibition that results from alcohol usage that may influence delinquent behaviors concurs with expectations. However the association between a lack of parental drinking and delinquent behavior is an unexpected finding that is not easily explained.

*Research Question #5-Drug, Alcohol and Tobacco Use*

Is there a relationship between the protective and risk factors that the Japanese youth possess individually or in their environment and drug, alcohol and tobacco use? This question will be answered by particular substance.

*Drug Use*

Particular risk and protective factors were useful for predicting drug use in Japanese youth. The total variation explained by the model (r square) was .53 for the full sample, .38 for the female sample and .53 for the male sample. The F value to test the null hypothesis for the full sample was 110.53, 40.64 for the female sample and 113.73 for the male sample. All were significant at the .001 level.

In Japan, drug use is illegal and even a small quantity of drugs is punishable with a lengthy incarceration. However, 8.4% of the female sample and 20.67% of the male sample reported that they had experimented with drugs.

There was only one protective factor variable that helped to predict drug use. A low score on the variable of easy temperament for the full and male sample was associated with drug use. There were no protective factor variables that were significant predictors of drug use in the female sample.

The risk factor variables that were predictors of drug use for the full sample were experiencing physical illness, involvement in Enjo Kosai, confusion over sexual orientation, living in an unsafe neighborhood, having a mother who was involved in Terekura, and having parents who gamble. The risk factor variables that were predictive of drug use in the female sample were involvement in Enjo Kosai, living in an unsafe neighborhood, having a mother who was involved in Terekura, and having parents who gamble. The risk factor variables that were predictors of drug use in the male sample were involvement in Enjo Kosai, living in an unsafe neighborhood, and having a mother who was involved in Terekura.

Perhaps drug use has been a solution found for some Japanese youth to self-medicate as a means of coping with issues of temperament. The involvement with Enjo Kosai was related to drug use in the full, female and male sample. In this instance it could be postulated that drugs are used as panacea to forget or minimize the Enjo Kosai events or to dull the pain before the next encounter. The belief that the respondent's mother is involved in Terekura also was predictive of drug use in the full and both sub-samples, perhaps the knowledge of knowing that their mother is involved in Terekura or overhearing their mothers talk erotically was deeply troubling. The lack of safety of the neighborhood was also a predictor in all samples. Finally, for both the full and female sample parents gambling predicted drug use.

*Alcohol Use*

As opposed to drug use, which is seen in Japan as an illicit activity by the mainstream, alcohol is readily available and socially acceptable. However, alcohol overuse is derided. Japanese "salarymen" (businessmen) do much of their work with

clients in bars at night. It is not uncommon to see large groups of men in suits inebriated shuffling home late at night after extended business meetings. Alcohol is sold in vending machines on city streets. Though the Japanese do have laws regulating the age of alcohol consumption, these regulations are considered to need only self-enforcement by the individual. As would be expected, these laws are generally overlooked. Eighty nine percent of the female and 82.69% of the male sample drink alcohol occasionally and 27.7% of the female and 12.2% of the male sample drink daily. It is interesting that the rates are higher for women than men.

There were some protective and risk factor variables that had some ability to predict alcohol use. The total variation explained by the model (r square) was .14 for the full sample, .14 for the female sample and .13 for the male sample. The F value to test the null hypothesis for the full sample was 22.63, 10.75 for the female sample and 21.04 for the male sample. All were significant at the .001 level.

The protective factor variables that were predictive of alcohol use for the full sample were a greater sense of humor, a larger social network, and a lack of parental values imparted. The protective factor variables that were predictive of alcohol use for the female sample were a larger social network, a lack of a school mentor, and a lack of parental values imparted. The protective factors that were predictive of alcohol use for the male sample were a greater social network and a lack of parental values imparted.

There were only two risk factor variables that were predictive of alcohol use. Living in an unsafe neighborhood was predictive of alcohol use for the full, female and male sample. Interestingly, the lack of mother being involved in Terekura was predictive of alcohol use for the full and female sample.

A greater sense of humor and a larger social network give rise to the image of the "life of the party" and are not surprising predictors of alcohol use. The lack of a school mentor as a predictor for alcohol use for the female sub-sample is an interesting finding. Perhaps these young women do not have a role model to help them negotiate a post secondary education and a future career due to the fact that the majority of their mothers' highest degree was high school. Perhaps without such a model they then follow the norms of the youth culture. Once again the neighborhood microsystem variable of living in an unsafe neighborhood was predictive. An unusual finding is that for the female sample, having a mother who was not involved with Terekura increased alcohol use. It should also be noted that for females, mothers involvement in Terekura was associated with both drug and alcohol use. Having a mother who was involved with Terekura was associated with drug use, but having a mother who was not involved in Terekura was associated with alcohol use for females. It is not clear why this is he case.

*Tobacco Use*

Tobacco use is at almost epidemic proportions in Japan. People seem to smoke everywhere and all the time. No smoking sections of restaurants are a very recent phenomenon and not yet available at all venues. It is commonplace to see men in jogging suits practicing Feng Shui in the park with cigarettes hanging out of their mouths. It is normal to see parents billow smoke in the faces of their children, even well-educated faculty members. There are no public service announcements on the dangers of smoking or the effects of second-hand smoke. Therefore, it is not remarkable that the sample reports a high frequency of tobacco use. In the sample, 40.7% of the females and 65.3%

of the males smoke occasionally and 22.4% of the female and 37.8% of the male sample smoke daily.

There were some protective and risk factors that were able to shed some insight into tobacco usage. The total variation explained by the model (r square) was .17 for the full sample, .20 for the female sample and .18 for the male sample. The F value to test the null hypothesis for the full sample was 27.96, 11.24 for the female sample and 22.45 for the male sample. All were significant at the .001 level.

The protective factor variables that were predictive of tobacco use for the full sample were a greater sense of humor, low emotional intelligence, and a lack of family economic stability. The protective factor variables that were predictive of smoking for the female sample were not feeling undervalued due to gender and a lack of supportive friends. For males, the protective factors that predicted tobacco use were a greater sense of humor, and low emotional intelligence.

The risk factor variables that were predictive of tobacco use for the full sample were living in an unsafe neighborhood, and viewing violence and sex on television. The risk factor variables that were predictive of tobacco use for the female sample were a living in an unsafe neighborhood and viewing violence and sex on television, having parents who were not aware of the respondents activities and moving frequently. The risk factor variables that were predictive of tobacco use by the male sample were living in an unsafe neighborhood and alcohol use.

It is interesting that females who were not feeling undervalued due to their gender chose to smoke. It could be interpreted that young women who have asserted their female equality have chosen smoking as their medium to convey their sentiments. This is

similar to the Virginia Slims advertisements and rumored to be the case in Japan. The connection between greater sense of humor and tobacco use may be attributed to the fact that most Japanese comics perform with a cigarette in their hand while they are on stage or on television. Cigarettes may be perceived as part of the attire one needs to communicate their sense of humor. It is also worthy of note that males with low emotional intelligence were more likely to smoke; this could conceivably be due to tobacco's calming effect and perhaps is used to overcome feelings of social ineptness. Females who reported fewer supportive friends also used tobacco. It is feasible that tobacco fills the void for women who do not have supportive friendships by calming frayed nerves. Once again living in an unsafe neighborhood is an important predictor. Intriguingly, tobacco use is the only outcome variable where family economic stability is a predictor. It is generally known that after W.W.II, many individuals smoked to stave off the effects of hunger; perhaps it is still a technique.

It also must be stated that this outcome variable probably would not be considered deleterious from a mainstream Japanese viewpoint. As a Westerner, tobacco use is of great concern. We have been continually bombarded with information of tobacco's deleterious effects, and our society has created laws and social edicts regarding exposing individuals to the dangers of tobacco-filled air especially for our most vulnerable, children and pregnant women. However, at this period in time, I believe it is of very little concern to the people of Japan.

*Research Question #6- Sexual Activity and Intercourse Age*

Is there a relationship between the protective factors and risk factors that the Japanese youth possess individually or in their environment and their involvement with sexual activity?

This question has been separated into two components. The first is sexual activity and the second is intercourse age. Though both outcomes are highly correlated to each other, there were some interesting differences between the models. It is for this reason that they remain distinct outcomes.

*Sexual Activity*

The total variation explained by the model (r square) was .24 for the full sample, .44 for the female sample and .23 for the male sample. The F value to test the null hypothesis for the full sample was 24.95, 19.12 for the female sample and 14.54 for the male sample. All were significant at the .001 level.

The protective factor variables that predicted sexual activity for the full sample were low moral development and a supportive partner. For the female sample, the protective factor variables that predicted sexual activity was a greater sense of humor, a lack of autonomy, a lack of a personal myth, and a supportive partner. Low moral development and a high level of autonomy were the protective factor variables that predicted sexual activity for the male sample.

The risk factor variables that predicted sexual activity for the full sample were a history of sexual abuse, a lack of sexual orientation confusion, living in an unsafe neighborhood, having parents who were not around, viewing sex and violence on television, and having a father who visits Fuzoku. For the female sample, the risk factor variables that predicted sexual activity were a history of sexual abuse, alcohol use, living

in an unsafe neighborhood, having parents who were not around, viewing sex and violence on television, and having a father who visits Fuzoku. For the male sample, a history of sexual abuse, a lack of sexual orientation confusion, alcohol use, living in an unsafe neighborhood, and having parents who were not around predicted sexual activity.

A history of sexual abuse often predicts sexually acting out behaviors. This finding has been frequently reported in western research. The lack of sexual orientation confusion for the full sample and the male sample seemed to allow for sexual activity. The involvement with a supportive partner increased sexual activity, as one would expect. It is worthy of note that a lack of autonomy in the female sample and greater autonomy in the male sample predicted sexual activity. Therefore, those females who were more dependent were more likely to be involved in sexual activity; this seems similar to female adolescent behavior in the U.S. Furthermore, males who are more independent are more sexually active. It is also interesting that the lack of a personal myth predicted sexual activity in the female sample. It would seem that without a personal plan for the future, females are more likely to be involved in sexual activity. This is similar to U.S. findings that report that females with greater future expectations are less likely to be sexually active. The viewing of sex and violence on television predicted sexual activity for the full and female sample; perhaps it is viewed as instructive as has been found to be the case in the investigation of adolescents of Rockdale County, Georgia (PBS, 2000). Both male and female respondents who reported that their parents were less frequently physically present were also more likely to be sexually active, this is similar to findings that have been published in the West. Also similar to findings regarding sexual behavior in the U.S., alcohol use predicted

sexual activity for both the female and the male sample. Low moral development as a predictor of sexual activity for the male and full sample is an interesting finding; perhaps reduced levels of internal control and personal principles allow for fewer qualms over sexual activity. Having a father who visits Fuzoku predicted sexual activity in the full and the female sample; perhaps the knowledge that their father is involved in sexual behavior disinhibited their behavior. Once again living in an unsafe neighborhood was a predictor.

*Age at First Intercourse*

The total variation explained by the model (r square) was .16 for the full sample, .37 for the female sample and .14 for the male sample. The F value to test the null hypothesis for the full sample was 17.84, 16.06 for the female sample and 13.21 for the male sample. All were significant at the .001 level.

The model of age at first intercourse was less robust than the model for sexual activity. The two models were identical with the exception being some of the variables that predicted sexual activity were absent in the model for age at first intercourse. For the model of age at first intercourse for the full and male sample, the protective factor variable of moral development was not a significant predictor. Also regarding the model of age at first intercourse for the male sample, the variables autonomy and unsafe neighborhood were not predictive. Finally, the model age at first intercourse for the female sample excluded the risk factor variable parents who were not physically around. Other than these differences, the two models were identical.

The more parsimonious model for age at first intercourse seems to miss some of the complexity of adolescent sexual behavior. It is for this reason that both models were

included. It also illustrates that there were some differences between individuals who were sexually active and the age of first intercourse.

In the fifth chapter, the results from a cultural perspective will be discussed, as well as, limitations of the study, implications for research and directions for future research.

**Table 10 Protective Factor Coefficients for Internalizing Behavior**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | 1.369*** | | 1.830*** | | 1.072*** | |
| **Internal Factors** | | | | | | |
| Autonomy | .0946*** | .12 | .103** | .14 | .08067^ | .09 |
| Self Efficacy | .09574*** | .11 | .110** | .15 | .07716 | .08 |
| Personal Myth | -.05368 | -.05 | -.120^ | -.13 | -.03507 | -.03 |
| Optimism | -.009543 | -.01 | -.02454 | -.03 | .002175 | .00 |
| Sense of Humor | -.1830 | -.02 | .04763 | .06 | -.04882 | -.05 |
| Temperament | -.178*** | -.17 | -.198*** | -.20 | -.145*** | -.14 |
| Physical Beauty | -.03226 | -.04 | -.015 | -.02 | -.03133 | -.04 |
| Moral Development | .113*** | .11 | .101 | .10 | .121** | .11 |
| Mental Flexibility | .04728 | .06 | .06192 | .08 | .04619 | .05 |
| Emotional Intelligence | -.167*** | -.15 | -.09822 | -.10 | -.215*** | -.18 |
| Spirituality | .197*** | .24 | .135*** | .18 | .230*** | .26 |
| Perceive Social Support | .135*** | .18 | .05366 | .08 | .173*** | .22 |
| **Peer Microsystem** | | | | | | |
| Partner Relationship | .03101 | .05 | .05307^ | .10 | .01492 | .02 |
| Social Network | -.02264 | -.03 | .02232 | .03 | -.05447 | -.07 |
| Supportive Friends | -.104** | -.10 | -.114** | -.13 | -.08809 | -.07 |
| **Neighborhood Microsystem** | | | | | | |
| Sense of Community | -.06591^ | -.09 | -.04619 | -.07 | -.08255^ | -.10 |
| Collective Efficacy | .07371^ | .08 | .03887 | .06 | .09024 | .09 |
| Social Capital | .04706^ | .07 | .009226 | .02 | .06915 | .10 |
| **School Microsystem** | | | | | | |
| School Belonging | .01985 | .02 | .006419 | .01 | .02061 | .02 |
| School Mentor | .04496 | .05 | .06726 | .09 | .04194 | .05 |
| **Family Microsystem** | | | | | | |
| Family Belonging | .03445 | .05 | .02087 | .03 | .04049 | .05 |
| Parental Marriage | -.04387 | -.06 | -.05819 | -.10 | -.02805 | -.04 |
| Parental Values | -.07816** | -.10 | -.123** | -.18 | -.05490 | -.07 |
| Familial Economic Stability | -.01616 | -.02 | -.05757^ | -.10 | .009692 | .01 |
| Paternal Relationship | .04201 | .05 | .02296 | .04 | .05733 | .06 |
| Maternal Relationship | -.03830 | -.04 | -.08475 | -.11 | .01510 | .01 |

^p<.10 , **p<.05, ***p< .01
Full Sample R square .31, F 11.48 sig. < .001
Female Sample R square .32, F 4.46 sig. < .001
Male Sample R square .33, F 7.50 sig. < .001

**Table 11 Protective Factor Coefficients for Delinquency**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | 1.224*** | | 1.912*** | | .551^ | |
| **Internal Factors** | | | | | | |
| Autonomy | .001956 | .00 | -.06284 | -.08 | .06049 | .06 |
| Self Efficacy | .07640^ | .08 | .02138 | .03 | .142** | .15 |
| Personal Myth | -.02336 | -.02 | -.08135 | -.08 | -.002141 | -.00 |
| Optimism | -.03816 | -.04 | -.07703 | -.08 | -.06911 | -.06 |
| Sense of Humor | .153*** | .16 | .190*** | .23 | .06059 | .06 |
| Temperament | -.02324 | -.02 | -.04515 | -.04 | -.01686 | -.02 |
| Physical Beauty | .07297** | .09 | .002973 | .00 | .08315^ | .10 |
| Moral Development | -.137*** | -.12 | -.131^ | -.12 | -.116^ | -.10 |
| Mental Flexibility | .02974 | .03 | .09208 | .11 | -.03148 | -.04 |
| Emotional Intelligence | -.128** | -.11 | -.224*** | -.21 | -.005404 | -.00 |
| Spirituality | .106*** | .12 | -.002138 | -.00 | .158*** | .18 |
| Perceive Social Support | .01668 | .02 | -.03676 | -.05 | -.003625 | -.01 |
| **Peer Microsystem** | | | | | | |
| Partner Relationship | .02639 | .04 | .01676 | .03 | .05995^ | .09 |
| Social Network | .04473 | .05 | .02594 | .03 | .07533 | .09 |
| Supportive Friends | -.03294 | -.03 | -.140** | -.14 | .143^ | .11 |
| **Neighborhood Microsystem** | | | | | | |
| Sense of Community | -.007322 | -.01 | -.03155 | -.05 | .006598 | .01 |
| Collective Efficacy | .02884 | .03 | .03728 | .05 | .02423 | .02 |
| Social Capital | .02807 | .04 | .01188 | .02 | -.0007284 | -.00 |
| **School Microsystem** | | | | | | |
| School Belonging | -.06051 | -.06 | -.05282 | -.06 | -.02016 | -.02 |
| School Mentor | -.02593 | -.03 | .01424 | .02 | -.03547 | -.04 |
| **Family Microsystem** | | | | | | |
| Family Belonging | -.01960 | -.03 | .04354 | .06 | -.02159 | -.03 |
| Parental Marriage | -.0009339 | -.00 | .03057 | .05 | -.009606 | -.01 |
| Parental Values | .01427 | .02 | .04679 | .06 | -.02707 | -.03 |
| Familial Economic Stability | -.006148 | -.01 | -.03613 | -.06 | .03701 | .05 |
| Paternal Relationship | .03136 | .04 | -.07321 | -.10 | .06477 | .07 |
| Maternal Relationship | -.132*** | -.13 | -.02135 | -.03 | -.189*** | -.18 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R Square .13, F 3.86 sig. < .001
Female Sample R Square .16, F 1.76 sig. < .016
Male Sample R Square .16, F 2.89 sig. < .001

**Table 12 Protective Factor Coefficients for Drug Use**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | .287^ | | .46*** | | .05465 | |
| **Internal Factors** | | | | | | |
| Autonomy | .01833 | .03 | .008641 | .03 | .02379 | .03 |
| Self Efficacy | .004149 | .01 | -.01567 | -.04 | .03190 | .04 |
| Personal Myth | -.04369 | -.06 | -.02009 | -.05 | -.05273 | -.06 |
| Optimism | .0001073 | .00 | .02366 | .06 | -.0283 | -.03 |
| Sense of Humor | .006229 | .01 | .04297 | .12 | -.03855 | -.05 |
| Temperament | -.0747** | -.10 | -.02704 | -.06 | -.09730** | -.11 |
| Physical Beauty | .0685*** | .12 | .04983** | .15 | .05774 | .09 |
| Moral Development | -.02639 | -.03 | -.01173 | -.03 | -.01778 | -.02 |
| Mental Flexibility | .01027 | .02 | -.001799 | -.01 | .005521 | .01 |
| Emotional Intelligence | -.03967 | -.05 | -.04412 | -.10 | -.01177 | -.01 |
| Spirituality | .07790*** | .13 | .007249 | .02 | .112*** | .16 |
| Perceive Social Support | .04279^ | .08 | -.02283 | -.07 | .05978^ | .09 |
| **Peer Microsystem** | | | | | | |
| Partner Relationship | .01475 | .03 | -.005334 | -.02 | .03785 | .07 |
| Social Network | .01552 | .03 | .002094 | .01 | .01456 | .02 |
| Supportive Friends | -.04284 | -.05 | -.112*** | -.27 | .04127 | .04 |
| **Neighborhood Microsystem** | | | | | | |
| Sense of Community | -.009786 | -.02 | -.0006118 | .00 | -.02357 | -.04 |
| Collective Efficacy | -.02383 | -.04 | -.008397 | -.03 | -.01467 | -.02 |
| Social Capital | .01552 | .03 | .003992 | .02 | .01492 | .03 |
| **School Microsystem** | | | | | | |
| School Belonging | .06001^ | .09 | .09632 | .03 | .111** | .14 |
| School Mentor | .04022 | .07 | -.01602 | -.05 | .07308^ | .10 |
| **Family Microsystem** | | | | | | |
| Family Belonging | .0001836 | .00 | .02939 | .10 | -.03151 | -.05 |
| Parental Marriage | -.001894 | -.01 | .001399 | .01 | -.004741 | -.01 |
| Parental Values | -.02525 | -.05 | .02805 | .09 | -.06662 | -.10 |
| Familial Economic Stability | -.01863 | -.04 | -.03025 | -.12 | -.004192 | -.01 |
| Paternal Relationship | .05324** | .05 | 002626 | .01 | .08464** | .12 |
| Maternal Relationship | -.04741 | -.07 | -.02156 | -.06 | -.05908 | -.07 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R Square .12, F 3.39 sig. < .001
Female Sample R Square .13, F 1.39 sig. < .106
Male Sample R Square .15, F 2.54 sig. < .001

**Table 13 Protective Factor Coefficients for Alcohol Use**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | 1.301*** | | 1.466*** | | 1.021** | |
| **Internal Factors** | | | | | | |
| Autonomy | .06796 | .05 | .152** | .14 | .02833 | .02 |
| Self Efficacy | -.07985 | -.06 | -.03236 | -.03 | -.09393 | -.07 |
| Personal Myth | -.08981 | -.06 | -.272** | -.20 | -.001332 | -.00 |
| Optimism | .02774 | .02 | .144 | .11 | -.02453 | -.02 |
| Sense of Humor | .203*** | .16 | .271*** | .24 | .134 | .10 |
| Temperament | -.05624 | -.04 | .04245 | .03 | -.103 | -.07 |
| Physical Beauty | .03517 | .03 | -.04274 | -.04 | .05867 | .05 |
| Moral Development | -.104 | -.07 | -.143 | -.10 | -.07446 | -.05 |
| Mental Flexibility | .04510 | .04 | .125 | .11 | -.01155 | -.01 |
| Emotional Intelligence | .01255 | .01 | -.149 | -.10 | .144 | .08 |
| Spirituality | .04109 | .03 | -.03185 | -.03 | .05795 | .05 |
| Perceive Social Support | .05170 | .05 | -.03989 | -.04 | .08081 | .07 |
| **Peer Microsystem** | | | | | | |
| Partner Relationship | .04171 | .05 | .04506 | .06 | .06591 | .07 |
| Social Network | .269*** | .23 | .264*** | .22 | .277*** | .23 |
| Supportive Friends | .02317 | .01 | -.009251 | -.01 | .114 | .06 |
| **Neighborhood Microsystem** | | | | | | |
| Sense of Community | .03022 | .03 | .006482 | .01 | .02218 | .02 |
| Collective Efficacy | -.02113 | -.02 | -.0009280 | -.00 | -.02210 | -.02 |
| Social Capital | -.01251 | -.01 | .01577 | .02 | -.03488 | -.04 |
| **School Microsystem** | | | | | | |
| School Belonging | -.03635 | -.03 | -.113 | -.09 | -.0007829 | -.00 |
| School Mentor | -.04286 | -.04 | -.143** | -.13 | .03072 | .02 |
| **Family Microsystem** | | | | | | |
| Family Belonging | -.09579^ | -.09 | -.09999 | -.11 | -.08893 | -.08 |
| Parental Marriage | -.01005 | -.01 | -.03567 | -.04 | -.007356 | -.01 |
| Parental Values | -.09258 | -.08 | -.05409 | -.05 | -.161** | -.13 |
| Familial Economic Stability | .007466 | .01 | -.06417 | -.07 | .05212 | .04 |
| Paternal Relationship | .04974 | .04 | .117 | .12 | .01026 | .01 |
| Maternal Relationship | .02064 | .02 | .143^ | .12 | -.05735 | -.04 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R Square .10, F 2.98 sig. < .001
Female Sample R Square .19, F 2.82 sig. < .001
Male Sample R Square .12, F 2.05 sig. < .003

**Table 14 Protective Factor Coefficients for Tobacco Use**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | 2.214*** | | 2.649*** | | 1.257** | |
| **Internal Factors** | | | | | | |
| Autonomy | -.06499 | -.03 | -.08847 | -.05 | -.02296 | -.01 |
| Self Efficacy | .129 | .06 | .0003708 | .00 | .231^ | .12 |
| Personal Myth | -.03241 | -.01 | -.003294 | -.00 | -.03249 | -.02 |
| Optimism | .004666 | .00 | .07357 | .03 | -.07969 | -.04 |
| Sense of Humor | .451*** | .22 | .348** | .18 | .384*** | .20 |
| Temperament | .01880 | .01 | -.02339 | -.01 | .04779 | .02 |
| Physical Beauty | -.06572 | -.04 | -.167 | -.09 | -.08238 | -.05 |
| Moral Development | -.03604 | -.02 | .04493 | .02 | -.03436 | -.02 |
| Mental Flexibility | -.02856 | -.02 | .03553 | .02 | -.09676 | -.05 |
| Emotional Intelligence | -.349*** | -.14 | -.324^ | -.13 | -.256 | -.10 |
| Spirituality | .160** | .09 | -.05612 | -.03 | .263*** | .15 |
| Perceive Social Support | .04323 | .03 | -.152 | -.08 | .06203 | .04 |
| **Peer Microsystem** | | | | | | |
| Partner Relationship | .08651 | .06 | .152^ | .12 | .09147 | .07 |
| Social Network | .114 | .06 | .355** | .17 | -.004682 | -.00 |
| Supportive Friends | -.204^ | -.08 | -.463*** | -.20 | .116 | .04 |
| **Neighborhood Microsystem** | | | | | | |
| Sense of Community | .02122 | .01 | .108 | .07 | -.02315 | -.01 |
| Collective Efficacy | .04446 | .02 | .06167 | .03 | -.01129 | -.01 |
| Social Capital | .04047 | .03 | -.09466 | -.07 | .08697 | .06 |
| **School Microsystem** | | | | | | |
| School Belonging | -.178^ | -.08 | -.187 | -.09 | -.105 | -.05 |
| School Mentor | .03989 | .02 | .05785 | .03 | .05587 | .03 |
| **Family Microsystem** | | | | | | |
| Family Belonging | -.116 | -.07 | -.07690 | -.05 | -.04636 | -.03 |
| Parental Marriage | -.07220 | -.04 | -.005615 | -.00 | -.128 | -.08 |
| Parental Values | .05126 | .03 | -.03435 | -.02 | .03926 | .02 |
| Familial Economic Stability | -.129** | -.08 | -.180^ | -.12 | -.04693 | -.03 |
| Paternal Relationship | .163** | .09 | .06275 | .04 | .143 | .08 |
| Maternal Relationship | -.133 | -.06 | -.133 | -.07 | -.009746 | -.01 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R Square .10, F 2.87 sig. < .001
Female Sample R Square .15, F 1.54 sig. < .05
Male Sample R Square .10, F 1.54 sig. < .05

**Table 15 Protective Factor Coefficients for Age of Sexual Activity**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | 1.441*** | | 2.204*** | | .723^ | |
| **Internal Factors** | | | | | | |
| Autonomy | .03013 | .03 | -.170*** | -.16 | .168*** | .14 |
| Self Efficacy | .02406 | .02 | .101 | .09 | -.02039 | -.02 |
| Personal Myth | -.08764 | -.06 | -.288*** | -.20 | -.03476 | -.03 |
| Optimism | -.04492 | -.03 | -.119 | -.08 | -.06603 | -.05 |
| Sense of Humor | .215*** | .18 | .441*** | .37 | .04658 | .04 |
| Temperament | .03428 | .02 | -.02758 | -.02 | .05295 | .04 |
| Physical Beauty | .119*** | .11 | -.001098 | -.00 | .178*** | .17 |
| Moral Development | -.187*** | -.13 | -.07256 | -.05 | -.209** | -.15 |
| Mental Flexibility | -.05832 | -.05 | .007980 | .01 | -.06840 | -.06 |
| Emotional Intelligence | -.08087 | -.05 | -.235** | -.16 | .02061 | .01 |
| Spirituality | .009373 | .01 | -.06869 | -.06 | .02410 | .02 |
| Perceive Social Support | .05176 | .05 | -.03267 | -.03 | .07134 | .07 |
| **Peer Microsystem** | | | | | | |
| Partner Relationship | .183*** | .22 | .245*** | .31 | .165*** | .19 |
| Social Network | .03896 | .04 | .201** | .16 | -.007469 | -.01 |
| Supportive Friends | -.07352 | -.05 | -.07815 | -.06 | .04790 | .03 |
| **Neighborhood Microsystem** | | | | | | |
| Sense of Community | .02415 | .02 | -.02822 | -.03 | .07366 | .07 |
| Collective Efficacy | -.03989 | -.03 | -.07926 | -.07 | -.04128 | -.03 |
| Social Capital | .01446 | .02 | -.07822 | -.09 | .05075 | .06 |
| **School Microsystem** | | | | | | |
| School Belonging | -.04026 | -.03 | -.112 | -.09 | .02039 | .02 |
| School Mentor | .04117 | .04 | .119^ | .11 | .005393 | .01 |
| **Family Microsystem** | | | | | | |
| Family Belonging | -.07625 | -.08 | .06733 | .07 | -.101 | -.10 |
| Parental Marriage | .07789^ | .08 | .03524 | .04 | .109^ | .10 |
| Parental Values | -.03300 | -.03 | -.109 | -.10 | -.02794 | -.03 |
| Familial Economic Stability | .01619 | .02 | -.07265 | -.08 | .08849 | .08 |
| Paternal Relationship | -.02914 | -.03 | -.02315 | -.02 | -.06371 | -.06 |
| Maternal Relationship | -.03755 | -.03 | .006868 | .01 | -.02385 | -.02 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R Square .14, F 4.13 sig. < .001
Female Sample R Square .30, F 3.83 sig. < .001
Male Sample R Square .15, F 2.51 sig. < .001

**Table 16 Protective Factor Coefficients for Intercourse Age**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | 1.489*** | | 2.116*** | | .746 | |
| **Internal Factors** | | | | | | |
| Autonomy | -.004226 | -.00 | -.173** | -.14 | .114 | .08 |
| Self Efficacy | .05390 | .04 | .201** | .15 | -.02379 | -.02 |
| Personal Myth | -.08114 | -.05 | -.391*** | -.24 | .02827 | .02 |
| Optimism | -.04236 | -.03 | -.07468 | -.05 | -.08291 | -.05 |
| Sense of Humor | .219*** | .16 | .482*** | .37 | .01411 | .01 |
| Temperament | .03215 | .02 | -.09458 | -.06 | .05127 | .03 |
| Physical Beauty | .133** | .11 | .01375 | .01 | .184** | .15 |
| Moral Development | -.126^ | -.08 | .04637 | .03 | -.161 | -.10 |
| Mental Flexibility | -.03869 | -.03 | .04573 | .04 | -.05859 | -.04 |
| Emotional Intelligence | -.109 | -.06 | -.320*** | -.19 | .05645 | .03 |
| Spirituality | -.02140 | -.02 | -.120 | -.10 | .009820 | .01 |
| Perceive Social Support | .08418 | .07 | .0008330 | .00 | .09252 | .08 |
| **Peer Microsystem** | | | | | | |
| Partner Relationship | .144*** | .15 | .184*** | .21 | .151*** | .15 |
| Social Network | .01301 | .01 | .216** | .15 | -.06420 | -.05 |
| Supportive Friends | -.100 | -.06 | -.130 | -.08 | .06412 | .03 |
| **Neighborhood Microsystem** | | | | | | |
| Sense of Community | .05062 | .04 | .02379 | .02 | .08645 | .07 |
| Collective Efficacy | -.08132 | -.06 | -.151 | -.125 | -.09710 | -.06 |
| Social Capital | .03193 | .03 | -.08032 | -.09 | .08653 | .08 |
| **School Microsystem** | | | | | | |
| School Belonging | -.02715 | -.02 | -.131 | -.09 | .05703 | .04 |
| School Mentor | .02637 | .02 | .113 | .09 | -.002651 | -.00 |
| **Family Microsystem** | | | | | | |
| Family Belonging | -.08581 | -.07 | .05650 | .05 | -.09528 | -.08 |
| Parental Marriage | .08476 | .07 | .04003 | .04 | .117 | .10 |
| Parental Values | -.03618 | -.03 | -.111 | -.09 | -.03239 | -.03 |
| Familial Economic Stability | -.004440 | -.00 | -.113^ | -.12 | .08693 | .07 |
| Paternal Relationship | -.02563 | -.02 | .008907 | .01 | -.08046 | -.06 |
| Maternal Relationship | -.03747 | -.03 | .07127 | .05 | -.05607 | -.04 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R Square .10, F 2.76 sig. < .001
Female Sample R Square .27, F 3.21 sig. < .001
Male Sample R Square .10, F 1.60 sig. < .05

**Table 17 Risk Factor Coefficients for Internalizing Behavior**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | .206*** | | .09248 | | .195^ | |
| **Developmental Factors** | | | | | | |
| Physical Illness | .06857*** | .09 | .06444^ | .10 | .07479** | .10 |
| Undervalued due to Gender | .01628 | .03 | .06731** | .12 | -.009764 | -.01 |
| History of Physical Abuse | .151*** | .19 | .07447 | .09 | .202*** | .25 |
| History of Sexual Abuse | .04327 | .04 | . 07324 | .07 | -.06221 | -.06 |
| Enjo Kosai | .02964 | .03 | .148** | .12 | .01474 | .01 |
| Confusion over Sexual Orientation | .103*** | .15 | .103*** | .15 | .119*** | |
| Alcohol Use | -.05129*** | -.08 | -.03930 | -.06 | -.04967** | -.07 |
| **Neighborhood Microsystem** | | | | | | |
| Not Safe | -.006167 | -.01 | -.05456 | -.06 | .01974 | .02 |
| **School Microsystem** | | | | | | |
| Bullied | .09405*** | .15 | .05396^ | .10 | .119*** | .17 |
| **Family Microsystem** | | | | | | |
| Parental Depression | .202*** | .21 | .191*** | .21 | .171*** | .18 |
| Domestic Violence Witnessed | -.05039** | -.06 | -.01830 | -.03 | -.06758** | -.08 |
| Personality Difference with Parents | .03852^ | .06 | .02977 | .04 | .06017** | .08 |
| Parents Lack Social Support | .005127 | .01 | .08911** | .12 | -.01934 | -.03 |
| Parents Use Alcohol | .03378 | .05 | .01097 | .02 | .04568 | .06 |
| Parents Not Aware | .127*** | .17 | .123*** | .19 | .104*** | .13 |
| Parents Not Around | -.01436 | -.02 | .004981 | .01 | -.006103 | -.01 |
| Parental Favoritism of Sibling | .07309*** | .11 | .123*** | .20 | .03658 | .05 |
| Believe Mom is involved in Terekura | -.07675^ | -.06 | -.256*** | -.14 | .004056 | .00 |
| Believe Dad visits Fuzuko | .009354 | .02 | .007300 | .01 | .01513 | .02 |
| Parent Gambles | .0001644 | .00 | -.05366 | -.05 | .01472 | .02 |
| Frequency of Moving | .02781^ | .05 | .04627** | .10 | .02104 | .03 |
| Home Too Small | .07630*** | .12 | .02855 | .05 | .09346*** | .14 |
| **Media Influences** | | | | | | |
| Hip Hop Culture | .004530 | .01 | .06409 | .09 | -.02731 | -.04 |
| View Violence/ Sex on TV | .04626** | .06 | .06442^ | .09 | .06560** | .08 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R Square .61, F 39.57 sig. < .001
Female Sample R Square .56, F 11.95 sig. < .001
Male Sample R Square .67, F 29.32 sig. < .001

**Table 18 Risk Factor Coefficients for Delinquency**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | -.160^ | | -.207 | | 07567 | |
| **Developmental Factors** | | | | | | |
| Physical Illness | -.01992 | -.03 | .01726 | .02 | -.04341 | -.06 |
| Undervalued due to Gender | .009376 | .01 | -.03535 | -.06 | .04168 | .06 |
| History of Physical Abuse | .06569^ | .08 | .05028 | .06 | .06884 | .09 |
| History of Sexual Abuse | .02735 | .02 | .102 | .09 | .08478 | .08 |
| Enjo Kosai | .01702 | 02 | .01059 | .01 | -.03421 | -.03 |
| Confusion over Sexual Orientation | -.01877 | -.03 | -.07403^ | -.10 | .0055203 | .00 |
| Alcohol Use | .09880*** | .14 | .05014 | .07 | .114*** | .17 |
| **Neighborhood Microsystem** | | | | | | |
| Not Safe | .274*** | .30 | .323*** | .35 | .257*** | .29 |
| **School Microsystem** | | | | | | |
| Bullied | .004671 | .01 | .02180 | .04 | .01012 | .01 |
| **Family Microsystem** | | | | | | |
| Parental Depression | -.06642^ | -.07 | -.03193 | -.03 | -.03882 | -.04 |
| Domestic Violence Witnessed | .106*** | .13 | .101*** | .14 | .109*** | .13 |
| Personality Difference with Parents | -.03839 | -.05 | -.07362 | -.10 | -.03504 | -.05 |
| Parents Lack Social Support | .04151 | .05 | .02975 | .04 | .03547 | .05 |
| Parents Use Alcohol | -.05364^ | -.07 | .004371 | .01 | -.101*** | -.13 |
| Parents Not Aware | .02384 | .03 | .03952 | .06 | .01186 | .01 |
| Parents Not Around | .04114 | .05 | .04202 | .05 | -.009330 | -.01 |
| Parental Favoritism of Sibling | .02619 | .04 | -.01403 | -.02 | .03404 | .05 |
| Believe Mom is involved in Terekura | .207*** | .16 | .284** | .15 | .161** | .14 |
| Believe Dad visits Fuzuko | .109*** | .16 | .06783^ | .11 | .113*** | .17 |
| Parent Gambles | -.007433 | -.01 | .04822 | .04 | -.03819 | -.04 |
| Frequency of Moving | .01908 | .03 | -.03094 | -.06 | .05767** | .09 |
| Home Too Small | -.01882 | -.03 | .006791 | .01 | -.01666 | -.02 |
| **Media Influences** | | | | | | |
| Hip Hop Culture | .06136** | .08 | .03906 | .05 | .08977** | .12 |
| View Violence/ Sex on TV | .152*** | .19 | .155*** | .20 | .07739** | .09 |

^p< .10, **p< .05, ***p< .01
Full Sample R square .49, F 24.34 sig. < .001
Female Sample R square .46, F 7.92 sig. < .001
Male Sample R square .51, F 15.12 sig. < .001

**Table 19 Risk Factor Coefficients for Drug Use**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | -.162** | | -.153** | | -.194^ | |
| **Developmental Factors** | | | | | | |
| Physical Illness | .03823** | .07 | .01341 | .04 | .05202^ | .08 |
| Undervalued due to Gender | -.006774 | -.01 | .01579 | .06 | -.02795 | -.05 |
| History of Physical Abuse | .02049 | .03 | -.02824 | -.07 | .02520 | .04 |
| History of Sexual Abuse | .04372 | .05 | .00221 | .00 | .07180 | .08 |
| Enjo Kosai | .147*** | .17 | .09093*** | .16 | .154*** | .17 |
| Confusion over Sexual Orientation | .05057*** | .10 | .02940 | .09 | .05301^ | .09 |
| Alcohol Use | .008579 | .02 | .0007374 | .00 | .01117 | .02 |
| **Neighborhood Microsystem** | | | | | | |
| Not Safe | .08999*** | .14 | .06811*** | .17 | .101*** | .14 |
| **School Microsystem** | | | | | | |
| Bullied | -.003587 | -.01 | -.01790 | -.07 | .01191 | .02 |
| **Family Microsystem** | | | | | | |
| Parental Depression | -.02465 | -.03 | .03342 | .08 | -.05674 | -.07 |
| Domestic Violence Witnessed | .03425^ | .06 | .006843 | .02 | .06098^ | .08 |
| Personality Difference with Parents | -.01920 | -.04 | .01055 | .03 | -.02883 | -.05 |
| Parents Lack Social Support | -.01230 | -.02 | .03098 | .09 | -.02319 | -.04 |
| Parents Use Alcohol | -.01018 | -.02 | -.001810 | -.01 | -.006464 | -.01 |
| Parents Not Aware | .01713 | .03 | -.01215 | -.04 | .02796 | .04 |
| Parents Not Around | .03800^ | .06 | -.007416 | -.02 | .05808^ | .08 |
| Parental Favoritism of Sibling | .003089 | .01 | .01198 | .04 | .01053 | .02 |
| Believe Mom is involved in Terekura | .338*** | .35 | .314*** | .38 | .317*** | .33 |
| Believe Dad visits Fuzuko | .004071 | .01 | -.01541 | -.06 | .01002 | .02 |
| Parent Gambles | .06760** | .09 | .09764*** | .21 | .04386 | .06 |
| Frequency of Moving | .01251 | .03 | .02285** | .11 | .008194 | .02 |
| Home Too Small | .004793 | .02 | -.01050 | -.04 | -.007020 | -.01 |
| **Media Influences** | | | | | | |
| Hip Hop Culture | -.007292 | -.01 | -.003851 | -.01 | -.001279 | -.00 |
| View Violence/ Sex on TV | .0022900 | .01 | -.01370 | -.04 | .01619 | .02 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R square .55, F 30.24 sig. < .001
Female Sample R square .43, F 7.06 sig. < .001
Male Sample R square .57, F 19.02 sig. < .001

**Table 20 Risk Factor Coefficients for Alcohol Use**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | 1.424*** | | 1.467*** | | 1.529*** | |
| **Developmental Factors** | | | | | | |
| Physical Illness | -.004903 | -.01 | -.112 | -.11 | .06414 | .06 |
| Undervalued due to Gender | .05054 | .05 | -.03639 | -.04 | .106^ | .10 |
| History of Physical Abuse | .04630 | .04 | .112 | .09 | -.01816 | -.02 |
| History of Sexual Abuse | .07425 | .05 | .139 | .09 | .01509 | .01 |
| Enjo Kosai | -.02225 | -.01 | -.220^ | -.12 | .07102 | .05 |
| Confusion over Sexual Orientation | -.01264 | -.01 | -.002648 | -.00 | -.04192 | -.04 |
| **Neighborhood Microsystem** | | | | | | |
| Not Safe | .225*** | .18 | .301*** | .24 | .166** | .13 |
| **School Microsystem** | | | | | | |
| Bullied | -.04280 | -.05 | .02977 | .04 | -.101^ | -.10 |
| **Family Microsystem** | | | | | | |
| Parental Depression | -.02259 | -.02 | -.134 | -.10 | .03802 | .03 |
| Domestic Violence Witnessed | .004431 | .00 | -.007717 | -.01 | -.03150 | -.03 |
| Personality Difference with Parents | -.006018 | -.01 | -.05545 | -.05 | -.001863 | -.00 |
| Parents Lack Social Support | -.0001030 | .00 | .123 | .11 | -.05980 | -.05 |
| Parents Use Alcohol | .06479 | .06 | .216*** | .20 | .01469 | .01 |
| Parents Not Aware | -.001042 | -.00 | -.03745 | -.04 | .01923 | .02 |
| Parents Not Around | -.02987 | -.02 | -.0007428 | -.00 | -.01793 | -.01 |
| Parental Favoritism of Sibling | -.02079 | -.02 | -.03008 | -.03 | .01303 | .01 |
| Believe Mom is involved in Terekura | -.237** | -.13 | -.365^ | -.14 | -.229^ | -.14 |
| Believe Dad visits Fuzuko | .02337 | .03 | -.01846 | -.02 | .06922 | .07 |
| Parent Gambles | .06468 | .05 | -.02507 | -.02 | .121 | .09 |
| Frequency of Moving | .02359 | .03 | -.02823 | -.04 | .04575 | .05 |
| Home Too Small | -.03988 | -.04 | -.009370 | -.01 | -.05179 | -.05 |
| **Media Influences** | | | | | | |
| Hip Hop Culture | .155*** | .14 | .108 | .10 | .161** | .14 |
| View Violence/ Sex on TV | .07803 | .07 | .118 | .11 | .02391 | .02 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R square .12, F 3.48 sig. < .001
Female Sample R square .18, F 2.22 sig. < .001
Male Sample R square .15, F 2.63 sig. < .001

**Table 21 Risk Factor Coefficients for Tobacco Use**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | .130 | | -.220 | | .889** | |
| **Developmental Factors** | | | | | | |
| Physical Illness | -.02068 | -.01 | -.03065 | -.02 | -.01183 | -.01 |
| Undervalued due to Gender | -.117^ | -.08 | -.222** | -.15 | .02550 | .02 |
| History of Physical Abuse | .134 | .07 | .193 | .09 | .116 | .07 |
| History of Sexual Abuse | .179 | .07 | .266 | .10 | .332^ | .15 |
| Enjo Kosai | -.114 | -.05 | .03286 | .01 | -.258^ | -.12 |
| Confusion over Sexual Orientation | -.09668 | -.06 | -.227^ | -.13 | -.04892 | -.03 |
| Alcohol Use | .314*** | .21 | .233** | .14 | .355*** | .26 |
| **Neighborhood Microsystem** | | | | | | |
| Not Safe | .393*** | .20 | .321** | .15 | .463*** | .26 |
| **School Microsystem** | | | | | | |
| Bullied | -.08327 | -.06 | .101 | .07 | -.175** | -.12 |
| **Family Microsystem** | | | | | | |
| Parental Depression | -.145 | -.07 | -.195 | -.09 | .01565 | .01 |
| Domestic Violence Witnessed | .09170 | .05 | .175 | .10 | .105 | .06 |
| Personality Difference with Parents | .001530 | .00 | -.133 | -.08 | .01896 | .01 |
| Parents Lack Social Support | .05854 | .03 | .02933 | .02 | -.03427 | -.02 |
| Parents Use Alcohol | .03469 | .02 | .01497 | .01 | .02297 | .01 |
| Parents Not Aware | .06664 | .04 | .363*** | .22 | -.184^ | -.11 |
| Parents Not Around | .143^ | .08 | -.08073 | -.04 | .139 | .08 |
| Parental Favoritism of Sibling | -.02532 | -.02 | -.007417 | -.01 | -.124 | -.08 |
| Believe Mom is involved in Terekura | -.09817 | -.04 | -.170 | -.04 | -.204 | -.09 |
| Believe Dad visits Fuzuko | .06783 | 05 | .122 | .08 | .005319 | .00 |
| Parent Gambles | .09989 | .05 | .197 | .08 | .05795 | .03 |
| Frequency of Moving | -.08931^ | -.07 | -.156** | -.13 | -.03451 | -.03 |
| Home Too Small | -.03656 | -.03 | -.05554 | -.04 | .03028 | .02 |
| **Media Influences** | | | | | | |
| Hip Hop Culture | .04770 | .03 | .270** | 14 | -.06897 | -.04 |
| View Violence/ Sex on TV | .261*** | .15 | .202^ | .11 | .146 | .09 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R square .22, F 7.10 sig. < .001
Female Sample R square .29, F 3.76 sig. < .001
Male Sample R square .22, F 4.05 sig. < .001

**Table 22 Risk Factor Coefficients for Age of Sexual Activity**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | .248 | | -.115 | | .723*** | |
| **Developmental Factors** | | | | | | |
| Physical Illness | .02829 | .03 | .02579 | .03 | .05539 | .06 |
| Undervalued due to Gender | -.01177 | -.01 | -.06270 | -.07 | .03801 | .04 |
| History of Physical Abuse | .04336 | .04 | .152^ | .19 | -.01034 | -.01 |
| History of Sexual Abuse | .232*** | .16 | .310*** | .19 | .271** | .19 |
| Enjo Kosai | -.03659 | -.02 | -.01045 | -.01 | -.04867 | -.04 |
| Confusion over Sexual Orientation | -.08867** | -.09 | -.01775 | -.02 | -.128** | -.14 |
| Alcohol Use | .191*** | .20 | .249*** | .24 | .168*** | .19 |
| **Neighborhood Microsystem** | | | | | | |
| Not Safe | .202*** | .17 | .277*** | .22 | .161** | .14 |
| **School Microsystem** | | | | | | |
| Bullied | -.03838 | -.04 | -.06101 | -.07 | -.05044 | -.06 |
| **Family Microsystem** | | | | | | |
| Parental Depression | -.106** | -.08 | -.115 | -.08 | -.03345 | -.03 |
| Domestic Violence Witnessed | .06140 | .06 | .05846 | .06 | .03870 | .04 |
| Personality Difference with Parents | .02848 | .03 | .01635 | .02 | .005930 | .01 |
| Parents Lack Social Support | .03746 | .04 | -.03281 | -.03 | .01309 | .01 |
| Parents Use Alcohol | -.01818 | -.02 | -.08082 | -.07 | -.007372 | -.01 |
| Parents Not Aware | .05674 | .05 | .09561 | .10 | .06677 | .06 |
| Parents Not Around | .189*** | .16 | .148^ | .11 | .151** | .14 |
| Parental Favoritism of Sibling | .001226 | .00 | .006487 | .01 | -.06058 | -.01 |
| Believe Mom is involved in Terekura | .01028 | .01 | .03511 | .01 | .01978 | .01 |
| Believe Dad visits Fuzuko | .08837** | .10 | .171*** | .19 | .04518 | .05 |
| Parent Gambles | -.06444 | -.05 | -.05130 | -.03 | -.07159 | -.06 |
| Frequency of Moving | -.04899^ | -.06 | -.05293 | -.07 | -.04136 | -.05 |
| Home Too Small | -.04897 | -.05 | -.008265 | -.01 | -.03790 | -.04 |
| **Media Influences** | | | | | | |
| Hip Hop Culture | .09168** | .09 | .002644 | .00 | .128** | .13 |
| View Violence/ Sex on TV | .08258** | .08 | .204*** | .19 | -.05791 | -.05 |

^p<. 10, **p<. 05, ***p< .01
**Full Sample R square .27, F 9.04 sig. < .001**
**Female Sample R square .42, F 6.73 sig. < .001**
**Male Sample R square .21, F 3.83 sig. < .001**

**Table 23 Risk Factor Coefficients for Intercourse Age**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | .06421 | | -.555** | | .776*** | |
| **Developmental Factors** | | | | | | |
| Physical Illness | .008344 | .01 | -.004832 | -.00 | .07387 | .06 |
| Undervalued due to Gender | .01250 | .01 | -.01335 | -.01 | .05669 | .05 |
| History of Physical Abuse | .04488 | .04 | .153 | .11 | -.02295 | -.02 |
| History of Sexual Abuse | .263*** | .15 | .273** | .15 | .427*** | .26 |
| Enjo Kosai | -.117 | -.07 | -.08772 | -.04 | -.152 | -.10 |
| Confusion over Sexual Orientation | -.115** | -.11 | -.04671 | -.04 | -.185*** | -.17 |
| Alcohol Use | .207*** | .19 | .285*** | .25 | .178*** | .17 |
| **Neighborhood Microsystem** | | | | | | |
| Not Safe | .164*** | .12 | .268*** | .19 | .111 | .09 |
| **School Microsystem** | | | | | | |
| Bullied | -.02078 | -.02 | -.04056 | -.04 | -.03553 | -.03 |
| **Family Microsystem** | | | | | | |
| Parental Depression | -.06773 | -.05 | -.05677 | -.04 | .02157 | .02 |
| Domestic Violence Witnessed | .04622 | .04 | .02900 | .03 | .04047 | .03 |
| Personality Difference with Parents | .04260 | .04 | .02007 | .02 | .01220 | .01 |
| Parents Lack Social Support | .06625 | .06 | .00002653 | .00 | .03109 | .03 |
| Parents Use Alcohol | .006618 | .01 | -.04640 | -.04 | .005387 | .01 |
| Parents Not Aware | .01870 | .02 | .09861 | .09 | .002858 | .00 |
| Parents Not Around | .174*** | .13 | .146^ | .10 | .104 | .08 |
| Parental Favoritism of Sibling | -.01576 | -.01 | -.06933 | -.07 | .008606 | .01 |
| Believe Mom is involved in Terekura | .03730 | .02 | .007369 | .00 | -.01025 | -.01 |
| Believe Dad visits Fuzuko | .114*** | .12 | .211*** | .22 | .06508 | .07 |
| Parent Gambles | -.03761 | -.03 | -.09943 | -.06 | -.01485 | -.01 |
| Frequency of Moving | -.04672 | -.05 | -.02497 | -.03 | -.05496 | -.06 |
| Home Too Small | -.05736 | -.06 | .02106 | .02 | -.07882 | -.08 |
| **Media Influences** | | | | | | |
| Hip Hop Culture | .06961 | .06 | .04433 | 04 | .08117 | .07 |
| View Violence/ Sex on TV | .134*** | .11 | .255*** | .21 | -.03067 | -.02 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R square .21, F 6.50 sig. < .001
Female Sample R square .38, F 5.65 sig. < .001
Male Sample R square .15, F 2.62 sig. < .001

**Table 24 Combined Protective and Risk Factors Related to Internalizing Behavior**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | .593*** | | .583** | | .680*** | |
| **Internal/Developmental Factors** | | | | | | |
| **Protective Factors** | | | | | | |
| Autonomy | .03293 | .04 | .06328^ | .09 | .008949 | .01 |
| Self Efficacy | .07036*** | .08 | .08775** | .11 | .03261 | .03 |
| Temperament | -.101*** | -.10 | -.152*** | -.16 | -.06877^ | -.06 |
| Moral Development | .08787*** | .08 | .06584 | .07 | .09067** | .08 |
| Emotional Intelligence | -.104*** | -.09 | -.003754 | -.00 | -.157*** | -.13 |
| Spirituality | .02095 | .03 | .009123 | .01 | .01785 | .02 |
| Perceive Social Support | .008461 | .01 | -.01084 | -.02 | .02396 | .03 |
| **Risk Factors** | | | | | | |
| Physical Illness | .07139*** | .10 | .07675** | .11 | .06636** | .09 |
| History of Physical Abuse | .143*** | .18 | .06252 | .07 | .186*** | .23 |
| Confusion over Sexual Orientation | .08414*** | .12 | .108*** | .15 | .09246*** | .13 |
| Undervalued due to Gender | .02022 | .03 | .04514 | .08 | .007645 | .01 |
| Enjo Kosai | .05441 | .05 | .184*** | .15 | .01438 | .01 |
| Alcohol Use | -.03871** | -.06 | -.02031 | -.03 | -.03077 | -.05 |
| **Peer Microsystem** | | | | | | |
| **Protective Factors** | | | | | | |
| Supportive Friends | -.05317^ | -.05 | -.02621 | -.03 | -.107** | -.09 |
| **School Microsystem** | | | | | | |
| **Risk Factors** | | | | | | |
| Bullied | .08805*** | .14 | .06450** | .12 | .100*** | .14 |
| **Family Microsystem** | | | | | | |
| **Protective Factors** | | | | | | |
| Parental Values | -.04387^ | -.06 | -.126*** | -.18 | .002619 | .00 |
| **Risk Factors** | | | | | | |
| Parental Depression | .197*** | .21 | .148*** | .17 | .172*** | .18 |
| Witnessed Domestic Violence | -.05039** | -.06 | .0005747 | .00 | -.08408*** | -.10 |
| Parents Not Aware | .118*** | .16 | .09996*** | .15 | .110*** | .14 |
| Parental Favoritism of Sibling | .06935*** | .10 | .138*** | .22 | .04063 | .06 |
| Home Small | .06242*** | .10 | .01745 | .03 | .07585*** | .11 |
| Parents Lack Social Support | -.01350 | -.02 | .04862 | .07 | -.02564 | -.03 |
| Believe Mom is involved in Terekura | -.04078 | -.03 | -.248*** | -.14 | .02137 | .02 |
| Frequency of Moving | .03440** | .06 | .05496*** | .12 | .02283 | .04 |
| Personality Difference with Parents | .002637 | .00 | -.01325 | -.02 | .02812 | .04 |
| **Media Influences** | | | | | | |
| View Violence /Sex on TV | .03724^ | .05 | .02451 | .03 | .07571** | .09 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R square .63, F 39.66 sig. < .001
Female Sample R square .59, F 12.63 sig. < .001
Male Sample R square .68, F 29.34 sig. < .001

**Table 25 Combined Protective and Risk Factors Related to Delinquency**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | .402*** | | .444^ | | .226 | |
| **Internal/Developmental Factors** | | | | | | |
| **Protective Factors** | | | | | | |
| Sense of Humor | .03738 | .04 | -.00906 | -.00 | .01605 | .02 |
| Physical Beauty | .03604 | .04 | .02797 | .04 | .03787 | .05 |
| Moral Development | -.09183** | -.08 | -.07545 | -.07 | -.09056** | -.08 |
| Emotional Intelligence | -.07307^ | -.06 | -.05329 | -.05 | -.03549 | -.03 |
| Spirituality | -.008709 | -.01 | -.02670 | -.03 | .008993 | .01 |
| Self Efficacy | .01088 | .01 | -.05102 | -.06 | .08395^ | .09 |
| **Risk Factors** | | | | | | |
| Alcohol Use | .09165*** | .13 | .03979 | .06 | .102*** | .15 |
| **Peer Microsystem** | | | | | | |
| **Protective Factors** | | | | | | |
| Supportive Friends | -.01037 | -.01 | -.08565 | -.09 | .08250^ | .07 |
| **Neighborhood Microsystem** | | | | | | |
| **Risk Factors** | | | | | | |
| Not Safe | .290*** | .32 | .346*** | .37 | .265*** | .31 |
| **Family Microsystem** | | | | | | |
| **Protective Factors** | | | | | | |
| Maternal Relationship | -.06293** | -.06 | .04648 | .06 | -.105** | -.10 |
| **Risk Factors** | | | | | | |
| Domestic Violence Witnessed | .09856*** | .12 | .09652** | .13 | .121*** | .14 |
| Believe Mom is involved in Terekura | .237*** | .18 | .324*** | .17 | .191*** | .16 |
| Believe Dad visits Fuzuko | .102*** | .15 | .06087^ | .10 | .105*** | .16 |
| Parents Use Alcohol | -.05805** | -.07 | .01316 | .02 | -.102*** | -.13 |
| Frequency of Moving | .01928 | .03 | -.03712 | -.07 | .06072*** | .10 |
| **Media Influences** | | | | | | |
| Hip Hop Culture | .04339 | .05 | .01490 | .02 | .07104** | .09 |
| View Violence/ Sex on TV | .138*** | .17 | .154*** | .20 | .07355** | .09 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R square .49, F 36.88 sig. < .001
Female Sample R square .43, F 11.07 sig. < .001
Male Sample R square .52, F 24.40 sig. < .001

**Table 26 Combined Protective and Risk Factors Related to Drug Use**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | -.05332 | | .02058 | | -.03315 | |
| **Internal/Developmental Factors** | | | | | | |
| **Protective Factors** | | | | | | |
| Temperament | -.05896*** | -.08 | -.01540 | -.04 | -.08470** | -.10 |
| Physical Beauty | .01403 | .02 | .02959^ | .09 | -.002158 | -.00 |
| Spirituality | .0003743 | .00 | -.0007960 | -.00 | -.007620 | -.01 |
| **Risk Factors** | | | | | | |
| Physical Illness | .03799** | .07 | .02457 | .08 | .04638 | .07 |
| Enjo Kosai | .152*** | .18 | .09142*** | .16 | .174*** | .19 |
| Confusion over Sexual Orientation | .04318** | .08 | .01748 | .05 | .04872^ | .09 |
| **Peer Microsystem** | | | | | | |
| **Protective Factors** | | | | | | |
| Supportive Friends | -.006676 | -.01 | -.03926^ | -.10 | .01092 | .01 |
| **Neighborhood Microsystem** | | | | | | |
| **Risk Factors** | | | | | | |
| Not Safe | .09420*** | .15 | .06180*** | .16 | .109*** | .15 |
| **School Microsystem** | | | | | | |
| **Protective Factors** | | | | | | |
| School Belonging | -.002810 | -.00 | -.03414^ | -.09 | .01753 | .02 |
| **Family Microsystem** | | | | | | |
| **Protective Factors** | | | | | | |
| Paternal Relationship | .03103^ | .05 | .02525 | .08 | .02928 | .04 |
| **Risk Factors** | | | | | | |
| Believe Mom is involved in Terekura | .383*** | .40 | .294*** | .36 | .398*** | .41 |
| Parent Gambles | .05949** | .09 | .08433*** | .18 | .02563 | .03 |
| Frequency of Moving | .01325 | .03 | .01692 | .08 | .007051 | .01 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R square .53, F 55.23 sig. < .001
Female Sample R square .42, F 14.10 sig. < .001
Male Sample R square .54, F 33.54 sig. < .001

**Table 27 Combined Protective and Risk Factors Related to Alcohol Use**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | 1.193*** | | 1.373*** | | 1.114*** | |
| **Internal/Developmental Factors** | | . | | | | |
| **Protective Factors** | | | | | | |
| Sense of Humor | .125** | .10 | .117 | .10 | .142^ | .10 |
| Autonomy | .03237 | .03 | -.001435 | -.00 | .03789 | .03 |
| Personal Myth | -.05069 | -.04 | -.128 | -.10 | -.007240 | -.01 |
| **Peer Microsystem** | | | | | | |
| **Protective Factors** | | | | | | |
| Social Network | .242*** | .20 | .255*** | .21 | .236*** | .19 |
| **Neighborhood Microsystem** | | | | | | |
| **Risk Factors** | | | | | | |
| Not Safe | .268*** | .21 | .272*** | .21 | .251*** | .20 |
| **School Microsystem** | | | | | | |
| **Protective Factors** | | | | | | |
| School Mentor | -.04520 | -.04 | -.15** | -.14 | .01022 | .01 |
| **Family Microsystem** | | | | | | |
| **Protective Factors** | | | | | | |
| Parental Values | -.109** | -.10 | -.01625 | -.02 | -.156** | -.13 |
| **Risk Factors** | | | | | | |
| Parental Alcohol Use | .07042^ | .07 | .124^ | .12 | .03550 | .03 |
| Believe Mom is involved in Terekura | -.144** | -.08 | -.426** | -.16 | -.110 | -.06 |
| **Media Influences** | | | | | | |
| Hip Hop Culture | .08815^ | .08 | .06757 | .06 | .104 | .09 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R square .16, F 12.36 sig. < .001
Female Sample R square .17, F 5.55 sig. < .001
Male Sample R square .16, F 7.57 sig. < .001

**Table 28 Combined Protective and Risk Factors Related to Tobacco Use**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | 1.419*** | | .479 | | 1.318*** | |
| **Internal/Developmental Factors** | | | | | | |
| **Protective Factors** | | | | | | |
| Sense of Humor | .275*** | .14 | .01975 | .01 | .334*** | .17 |
| Emotional Intelligence | -.401*** | -.16 | -.196 | -.08 | -.459*** | -.18 |
| Spirituality | -.0009318 | .00 | -.03980 | -.02 | .04415 | .03 |
| **Risk Factors** | | | | | | |
| Feel Undervalued due to Gender | -.09659^ | -.07 | -.182** | -.13 | -.03586 | -.03 |
| Alcohol Use | .300*** | .20 | .192^ | .11 | .337*** | .24 |
| **Peer Microsystem** | | | | | | |
| **Protective Factors** | | | | | | |
| Social Network | .02418 | .01 | .238^ | .12 | -.03643 | -.02 |
| Supportive Friends | -.169^ | -.07 | -.303** | -.13 | .139 | .05 |
| **Neighborhood Microsystem** | | | | | | |
| **Risk Factors** | | | | | | |
| Not Safe | .459*** | .24 | .373*** | .17 | .536*** | .30 |
| **Family Microsystem** | | | | | | |
| **Protective Factors** | | | | | | |
| Familial Economic Stability | -.135** | -.09 | -.110 | -.08 | -.09647 | -.06 |
| Paternal Relationship | .03210 | .02 | .07036 | .04 | .05666 | .03 |
| **Risk Factors** | | | | | | |
| Parents Not Aware | .03667 | .02 | .317*** | .19 | -.131 | -.08 |
| Frequency of Moving | -.06583 | -.05 | -.136** | -.11 | -.04287 | -.03 |
| **Media Influences** | | | | | | |
| View Violence/ Sex on TV | .161** | .09 | .249** | .14 | .04679 | .03 |
| Hip Hop Culture | .01039 | .01 | .173 | .09 | -.11 | -.07 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R square .21, F 12.61 sig. < .001
Female Sample R square .24, F 5.82 sig. < .001
Male Sample R square .21, F 7.16 sig. < .001

**Table 29 Combined Protective and Risk Factors Related to Sexual Activity**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | .461^ | | .687^ | | .385 | |
| **Internal/ Developmental Factors** | | | | | | |
| **Protective Factors** | | | | | | |
| Sense of Humor | .08764^ | .07 | .229*** | .19 | -.01132 | -.01 |
| Physical Beauty | .06237 | .06 | -.02197 | -.02 | .100^ | .10 |
| Moral Development | -.136** | -.09 | -.01874 | -.02 | -.164** | -.12 |
| Autonomy | .04438 | .04 | -.163*** | -.14 | .160*** | .13 |
| Personal Myth | -.06504 | -.05 | -.252*** | -.18 | -.02508 | -.02 |
| Emotional Intelligence | -.06743 | -.04 | -.137 | -.09 | .05436 | .03 |
| **Risk Factors** | | | | | | |
| History of Sexual Abuse | .197*** | .13 | .275*** | .17 | .238*** | .17 |
| Confusion over Sexual Orientation | -.07743** | -.08 | .04956 | .05 | -.130*** | -.15 |
| Alcohol Use | .158*** | .17 | .195*** | .19 | .138*** | .16 |
| **Peer Microsystem** | | | | | | |
| **Protective Factors** | | | | | | |
| Partner Relationship | .140*** | .17 | .208*** | .26 | .129*** | .15 |
| Social Network | -.02146 | -.02 | .04505 | .04 | -.03348 | -.03 |
| **Neighborhood Microsystem** | | | | | | |
| **Risk Factors** | | | | | | |
| Not Safe | .206*** | .18 | .259*** | .20 | .171*** | .15 |
| **Family Microsystem** | | | | | | |
| **Risk Factors** | | | | | | |
| Parental Depression | -.08958^ | -.07 | -.09309 | -.07 | -.04832 | -.04 |
| Parents Not Around | .201*** | .17 | .136** | .11 | .165*** | .15 |
| Believe Dad visits Fuzuko | .07053** | .08 | .128*** | .14 | .04382 | .05 |
| **Media Influences** | | | | | | |
| Hip Hop Culture | .02571 | .03 | -.09619 | -.09 | .08126 | .08 |
| View Violence /Sex on TV | .08107** | .07 | .145** | .13 | -.02949 | -.03 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R square .28, F 14.61 sig. < .001
Female Sample R square .46, F 11.80 sig. < .001
Male Sample R square .25, F 7.48 sig. < .001

**Table 30 Combined Protective and Risk Factors Related to Intercourse Age**

| Predictor | Unstandardized Beta Full Sample | Standardized Beta Full Sample | Unstandardized Beta Female Sample Only | Standardized Beta Female Sample Only | Unstandardized Beta Male Sample Only | Standardized Beta Male Sample Only |
|---|---|---|---|---|---|---|
| Constant | .275 | | .472 | | .263 | |
| **Internal/Developmental Factors** | | | | | | |
| **Protective Factors** | | | | | | |
| Sense of Humor | .08593 | .06 | .204** | .15 | -.04496 | -.03 |
| Physical Beauty | .08068 | .07 | -.01078 | -.01 | .134^ | .11 |
| Autonomy | -.001888 | -.00 | -.159** | -.12 | .08364 | .06 |
| Self Efficacy | .008996 | .01 | .110 | .08 | -.01169 | -.01 |
| Personal Myth | -.06720 | -.04 | -.309*** | -.19 | .03032 | .02 |
| Emotional Intelligence | -.101 | -.06 | -.178^ | -.11 | .05472 | .03 |
| **Risk Factors** | | | | | | |
| History of Sexual Abuse | .228*** | .14 | .210** | .12 | .348*** | .21 |
| Confusion over Sexual Orientation | -.126*** | -.12 | .006831 | .01 | -.192*** | -.18 |
| Alcohol Use | .188*** | .17 | .260*** | .22 | .153*** | .15 |
| **Peer Microsystem** | | | | | | |
| **Protective Factors** | | | | | | |
| Partner Relationship | .09582*** | .10 | .132*** | .15 | .114** | .11 |
| Social Network | -.05228 | -.04 | .03363 | .02 | -.05851 | -.05 |
| **Neighborhood Microsystem** | | | | | | |
| **Risk Factors** | | | | | | |
| Not Safe | .150*** | .11 | .222*** | .15 | .123^ | .10 |
| **Family Microsystem** | | | | | | |
| **Risk Factors** | | | | | | |
| Parents Not Around | .203*** | .15 | .133^ | .09 | .147** | .11 |
| Believe Dad visits Fuzuko | .08769** | .09 | .144*** | .15 | .05297 | .05 |
| **Media Influences** | | | | | | |
| View Violence/ Sex on TV | .110** | .09 | .153** | .13 | -.02493 | -.02 |

^p<. 10, **p<. 05, ***p< .01
Full Sample R square .20, F 10.71 sig. < .001
Female Sample R square .39, F 10.25 sig. < .001
Male Sample R square .17, F 5.15 sig. < .001

**Table 31 Protective and Risk Factors that Relate to Outcomes by Full (S), Female (F), and Male (M) Sample**

| Predictor | Internalizing Behavior | Delinquency | Drug Use | Alcohol Use | Tobacco Use | Sexual Activity | Intercourse Age |
|---|---|---|---|---|---|---|---|
| **Internal/ Development Factors** | | | | | | | |
| **Protective Factors** | | | | | | | |
| Autonomy | | | | | | -F M | -F |
| Self Efficacy | S F | | | | | | |
| Personal Myth | | | | | | -F | -F |
| Optimism | | | | | | | |
| Sense of Humor | | | | S | S M | F | F |
| Temperament | -S -F | | -S -M | | | | |
| Physical Beauty | | | | | | | |
| Moral Development | S M | -S -M | | | | -S -M | |
| Mental Flexibility | | | | | | | |
| Emotional Intelligence | -S -M | | | | -S -M | | |
| Spirituality | | | | | | | |
| Perceive Social Support | | | | | | | |
| **Risk Factors** | | | | | | | |
| Physical Illness | S F M | | S | | | | |
| Undervalued due to Gender | | | | | -F | | |
| History of Physical Abuse | S M | | | | | | |
| History of Sexual Abuse | | | | | | S F M | S F M |
| Enjo Kosai | F | | S F M | | | | |
| Confusion over Sexual Orientation | S F M | | S | | | -S -M | -S -M |
| Alcohol Use | -S | S M | | | M | S F M | S F M |
| **Peer Microsystem** | | | | | | | |
| **Protective Factors** | | | | | | | |
| Partner Relationship | | | | | | S F M | S F M |
| Social Network | | | | S F M | | | |
| Supportive Friends | -M | | | | -F | | |
| **Neighborhood Microsystem** | | | | | | | |
| **Protective Factors** | | | | | | | |
| Sense of Community | | | | | | | |
| Collective Efficacy | | | | | | | |
| Social Capital | | | | | | | |
| **Risk Factors** | | | | | | | |
| Not Safe | | S F M | S F M | S F M | S F M | S F M | S F |
| **School Microsystem** | | | | | | | |
| **Protective Factors** | | | | | | | |
| School Belonging | | | | | | | |
| School Mentor | | | | -F | | | |
| **Risk Factors** | | | | | | | |
| Bullied | S F M | | | | | | |
| **Family Microsystem** | | | | | | | |
| **Protective Factors** | | | | | | | |
| Family Belonging | | | | | | | |
| Parental Marriage | | | | | | | |
| Parental Values | -F | | | -S -F-M | | | |

| Predictor | **Internalizing Behavior** | **Delinquency** | **Drug Use** | **Alcohol Use** | **Tobacco Use** | **Sexual Activity** | **Intercourse Age** |
|---|---|---|---|---|---|---|---|
| Familial Economic Stability | | | | | -S | | |
| Paternal Relationship | | | | | | | |
| Maternal Relationship | | -S -M | | | | | |
| **Risk Factors** | | | | | | | |
| Parental Depression | S F M | | | | | | |
| Domestic Violence Witnessed | S M | S F M | | | | | |
| Personality Differences with Parents | | | | | | | |
| Parents Lack Social Support | | S | | | | | |
| Parents Use Alcohol | | -S -M | | | | | |
| Parents Not Aware | S F M | | | | F | | |
| Parents Not Around | | | | | | S F M | S M |
| Parental Favoritism of Sibling | S F | | | | | | |
| Believe Mom is Involved in Terekura | F | S F M | S F M | -S -F | | | |
| Believe Dad visits Fuzuko | | S M | | | | S F | S F |
| Parent Gambles | | | S F | | | | |
| Frequency of Moving | S F | M | | | -F | | |
| Home Too Small | S M | | | | | | |
| **Media Influences** | | | | | | | |
| Hip Hop Culture | | M | | | | | |
| View Violence/ Sex on TV | M | S F M | | | S F | S F | S F |

Beta values are $p \leq .05$ to be given a letter

**Table 32 Best Fitting Regression Equations for Each Variable by Full Sample and Gender using Unstandardized Coefficients**

| Outcome Variable | Sample | Equation | R Square | F Value and Significance |
|---|---|---|---|---|
| Internalizing Behavior | Full Sample | Internalizing= .45<br>+ .07 Self Efficacy<br>- .12 Temperament<br>+ .08 Moral Development<br>- .12 Emotional Intelligence<br>+ .07 Physical Illness<br>+ .16 History of Physical Abuse<br>+ .10 Sexual Orientation Confusion<br>+ .10 Bullied<br>+ .21 Parental Depression<br>- .05 Domestic Violence Witnessed<br>+ .14 Parents Not Aware<br>+ .08 Parental Favoritism of Sibling<br>+ .06 Home Small<br>+ .03 Frequency of Moving | .62 | 71.10<br>sig. <.001 |
| Internalizing Behavior | Female Sample | Internalizing= .90<br>+ .11 Self Efficacy<br>- .18 Temperament<br>+ .08 Physical Illness<br>+ .14 Sexual Orientation Confusion<br>+ .17 Enjo Kosai<br>+ .08 Bullied<br>- .14 Parental Values<br>+ .18 Parental Depression<br>+ .11 Parents Not Aware<br>+ .15 Parental Favoritism of Sibling<br>+ .21 Mom involved in Terekura<br>+ .05 Frequency of Moving | .57 | 26.29<br>sig. <.001 |
| Internalizing Behavior | Male Sample | Internalizing= .51<br>+ .13 Moral Development<br>- .17 Emotional Intelligence<br>+ .06 Physical Illness<br>+ .18 history of Physical Abuse<br>+ .12Sexual Orientation Confusion<br>+ .10 View Violence/Sex on TV<br>- .12 Supportive Friends<br>+ .11 Bullied<br>+ .18 Parental Depression<br>- .06 Domestic Violence Witnessed<br>+ .14 Parents Not Aware<br>+ .10 Home Small | .65 | 60.90<br>sig. <.001 |
| Delinquency | Full Sample | Delinquency= .51<br>- .12 Moral Development<br>+ .16 View Violence/ Sex on TV<br>+ .34 Neighborhood Not Safe<br>- .05 Maternal Relationship<br>+ .10 Domestic Violence Witnessed<br>+ .23 Mom involved in Terekura<br>+ .11 Dad visits Fuzuko<br>- .03 Parents Use Alcohol | .46 | 71.02<br>sig. <.001 |
| Delinquency | Female Sample | Delinquency= -.54<br>+ .15 View Violence/ Sex on TV<br>+ .38 Neighborhood Not Safe<br>+ .11 Domestic Violence Witnessed<br>+ .36 Mom involved in Terekura | .38 | 40.92<br>sig. <.001 |

| | | | | |
|---|---|---|---|---|
| Delinquency | Male Sample | Delinquency= .41<br>- .06 Moral Development<br>+ .09 Hip Hop Culture<br>+ .08 View Violence/ Sex on TV<br>+ .11 Alcohol Use<br>+ .27 Neighborhood Not Safe<br>- .07 Maternal Relationship<br>+ .12 Domestic Violence Witnessed<br>+ .19 Mom involved inTerekura<br>+ .12 Dad visists Fuzuko<br>- .09 Parents Use Alcohol<br>+ .06 Frequency of Moving | .51 | 36.11<br>sig. <.001 |
| Drug Use | Full Sample | Drug Use= .02<br>- .06 Temperament<br>+ .04 Physical Illness<br>+ .17 Enjo Kosai<br>+ .04 Sexual Orientation Confusion<br>+ .09 Neighborhood Not Safe<br>+ .39 Mom involved in Terekura<br>+ .06 Parent Gambles | .53 | 110.53<br>sig. <.001 |
| Drug Use | Female Sample | Drug Use= -.05<br>+ .08 Enjo Kosai<br>+ .06 Neighborhood Not Safe<br>+ .33 Mom involved in Terekura<br>+ .10 Parent Gambles | .38 | 40.64<br>sig. <.001 |
| Drug Use | Male Sample | Drug Use= .18<br>- .10 Temperament<br>+ .22 Enjo Kosai<br>+ .14 Neighborhood Not Safe<br>+ .43 Mom involved in Terekura | .53 | 113.73<br>sig. <.001 |
| Alcohol Use | Full Sample | Alcohol Use= 1.2<br>+ .14 Sense of Humor<br>+ .24 Social Network<br>+ .32 Neighborhood Not Safe<br>- .12 Parental Values<br>- .12 Mom involved inTerekura | .14 | 22.63<br>sig. <.001 |
| Alcohol Use | Female Sample | Alcohol Use= 1.3<br>+ .26 Social Network<br>+ .32 Neighborhood Not Safe<br>- .12 Parental Values<br>- .28 Mom involved inTerekura<br>- .15 School Mentor | .14 | 10.75<br>sig. <.001 |
| Alcohol Use | Male Sample | Alcohol Use= 1.4<br>+ .29 Social Network<br>+ .32 Neighborhood Not Safe<br>- .12 Parental Values | .13 | 21.04<br>sig. <.001 |
| Tobacco Use | Full Sample | Tobacco Use= 1.4<br>+ .31 Sense of Humor<br>- .40 Emotional Intelligence<br>+ .21 View Violence/ Sex on TV<br>+ .53 Neighborhood Not Safe<br>- .11 Family Economic Stability | .17 | 27.96<br>sig. <.001 |
| Tobacco Use | Female Sample | Tobacco Use= 1.06<br>- .19 Undervalued Due to Gender<br>- .32 Supportive Friends<br>+ .31 View Violence/ Sex on TV<br>+ .51 Neighborhood Not Safe<br>+ .30 Parents Not Aware<br>- .15 Frequency of Moving | .20 | 11.24<br>sig. <.001 |

| | | | | |
|---|---|---|---|---|
| Tobacco Use | Male Sample | Tobacco Use= 1.21<br>+ .29 Sense of Humor<br>- .34 Emotional Intelligence<br>+ .30 Alcohol Use<br>+ .45 Neighborhood Not Safe | .18 | 22.45<br>sig. <.001 |
| Sexual Activity | Full Sample | Sexual Activity= .56<br>- .16 Moral Development<br>+ .20 History of Sexual Abuse<br>- .07 Sexual Orientation Confusion<br>+ .15 Supportive Partner<br>+ .10 View Violence/ Sex on TV<br>+ .26 Neighborhood Not Safe<br>+ .22 Parents Not Around<br>+ .07 Dad Visits Fuzuko | .24 | 24.95<br>sig. <.001 |
| Sexual Activity | Female Sample | Sexual Activity= .37<br>+ .17 Sense of Humor<br>- .19 Autonomy<br>- .25 Personal Myth<br>+ .28 History of Sexual Abuse<br>+ .19 Supportive Partner<br>+ .15 View Violence/Sex on TV<br>+ .22 Alcohol Use<br>+ .23 Neighborhood Not Safe<br>+ .14 Parents Not Around<br>+ .11 Dad visits Fuzuko | .44 | 19.12<br>sig. <.001 |
| Sexual Activity | Male Sample | Sexual Activity= .35<br>- .15 Moral Development<br>+ .14 Autonomy<br>+ .27 History of Sexual Abuse<br>- .13 Sexual Orientation Confusion<br>+ .15 Supportive Partner<br>+ .15 Alcohol Use<br>+ .21 Neighborhood Not Safe<br>+ .21 Parents Not Around | .23 | 14.54<br>sig. <.001 |
| Intercourse Age | Full Sample | Intercourse Age= .18<br>+ .23 History of Sexual Abuse<br>- .12 Sexual Orientation Confusion<br>+ .09 Supportive Partner<br>+ .14 View Violence/Sex on TV<br>+ .22 Neighborhood Not Safe<br>+ .25 Parents Not Around<br>+ .10 Dad visits Fuzuko | .16 | 17.84<br>sig. <.001 |
| Intercourse Age | Female Sample | Sexual Activity= .57<br>+ .20 Sense of Humor<br>- .20 Autonomy<br>- .33 Personal Myth<br>+ .24 History of Sexual Abuse<br>+ .12 Supportive Partner<br>+ .19 View Violence/Sex on TV<br>+ .27 Alcohol Use<br>+ .23 Neighborhood Not Safe<br>+ .15 Dad visits Fuzuko | .37 | 16.06<br>sig. <.001 |
| Intercourse Age | Male Sample | Sexual Intercourse Age= .54<br>+ .42 History of Sexual Abuse<br>- .16 Sexual Orientation Confusion<br>+ .14 Supportive Partner<br>+ .18 Alcohol Use<br>+ .21 Parents Not Around | .14 | 13.21<br>sig. <.001 |

# Chapter V

# DISCUSSION

## Summary Conclusions

This is the first study that has investigated the protective and risk factors that are associated with resilient outcomes in Japan. Though there are many aspects of Japanese culture that are unique; there are many protective and risk factors that seem to be similar to western protective factors. Of the 26 western protective factor variables investigated, 14 were found to be predictive in the Japanese sample in at least one regression equation. The internal protective factor variables that were significant predictors were: autonomy, self-efficacy, the creation of a personal myth, having a sense of humor, easy temperament, moral development, and emotional intelligence. All the peer microsystem protective factor variables were predictive of at least one outcome; they include: partner relationship, social network, and supportive friends. There were no neighborhood microsystem protective factor variables that were significant predictors of the outcomes. The sole school microsystem protective factor variable that was predictive was a relationship with a school mentor. The family microsystem protective factor variables that had predictive ability were having parents who imparted values, family economic stability, and having a strong maternal relationship.

The presence of these protective factor variables found in the Japanese sample relate to a large body of prior research found in occidental research. Being an autonomous, independent individual was found to be a protective factor for many

researchers (Howard, Dryden & Johnson, 1999; Wang, Haertel & Walberg, 1994: Werner, 1994). Likewise, the possession of self-efficacy beliefs contributed to improved outcomes for many individuals (Garbarino, Dubrow, Kostelny & Pardo, 1992; Garmezy, 1996; Gore & Eckenrode, 1996; Emery & Forehand, 1996; Kumpfer, 1999; Masten & Coatsworth, 1998; Maughan, 1992; McCubbin, McCubbin, Thompson & Thompson, 1998; McMillan & Reed, 1994; Larson, 2000; Rutter, 1999b; Rutter, 1989; Rutter, 1987; Sameroff, 2000; Wang, Haertel & Walberg, 1994; Werner & Smith, 2001). The creation of a personal myth that acted as a guide and a plan for the individual was found to be important for resilient outcomes in various studies (Garbarino, 1992; Garmezy, 1996; Howard, Dryden, & Johnson, 1999; Kumpfer, 1999; Wang, Haertel & Walberg, 1994). Having a sense of humor that alleviated stress for the individual and others in her environment was also an important protective factor (Emery & Forehand, 1996; Garbarino, Dubrow, Kostelny & Pardo, 1992; Kumpfer, 1999; Masten, 1986; McCubbin, McCubbin, Thompson & Thompson, 1998; Rutter, 1987; Wang, Haertel & Walberg, 1994). Furthermore, many researchers agreed that an easy temperament contributed to more resilient outcomes (Emery & Forehand, 1996; Garcia-Coll, Lamberty, Jenkins, McAdoo, Crnic, Wasik & Garcia, 1996; Garbarino, Dubrow, Kostelny & Pardo, 1992; Gilvarry, 2000; Gore & Eckenrode, 1996; Henry, Caspi, Moffitt & Silva, 1996; Kumpfer, 1999; Masten & Coatsworth, 1998; McMillan & Reed, 1994; Wang, Haertel & Walberg, 1994; Werner, 1994; Werner & Smith, 2001). Likewise, individuals who had greater moral development had improved outcomes in some studies (Brooks & Goldstein, 2001; Jessor, Van Den Bos, Vanderryn, Costa & Turbin, 1995; Kumpfer, 1999). Emotional intelligence that includes self-regulation, self-control, socially appropriate conduct, and

sociability has been found to be an important protective factor in prior research with western samples (Bogenschneider, 1998; Cicchetti, Toth & Rogosch, 2000; Cowen, Wyman, Work, Kim, Emery & Forehand, 1996; Fagen, & Magnus, 1997; Hawkins, Catalano & Miller, 1992; Masten & Coatsworth, 1998; Novick, 1998; Rutter, 1989; Wang, Haertel & Walberg, 1994; Werner, 1994; Werner & Smith, 2001).

Within the peer microsystem, a strong partner relationship predicted more resilient outcomes (Higgins, 1994; Moskovitz, 1985; Quinton, Rutter & Liddle, 1984; Werner, 1994; Werner & Smith, 2001). A wider social network was found to be important for the child's optimal development (Burton & Jarrett, 2000; Emery & Forehand, 1996; Garbarino, Dubrow, Kostelny & Pardo, 1992; Garcia-Coll, Lamberty, Jenkins, McAdoo, Crnic, Wasik & Garcia, 1996; Garmezy, 1993; Hawkins, Catalano and Miller, 1992; McMillan & Reed, 1994; Osofsky, 1999; Wang, Haertel & Walberg, 1994; Werner, 1994; Werner & Smith, 2001). Likewise, supportive friends who were both a support and a refuge for adolescents was a protective factor (Cauce, Mason, Gonzalez, Hiraga &Liu, 1994). The presence of a school mentor in the life of a student experiencing stress was found to be an important protective factor in several studies (Garmezy, 1996, 1993,1985; Gottlieb and Sylvestre, 1994; Howard, Dryden and Johnson, 1999; Larson, 2000; Luthar, Cicchetti and Becker, 2000; McLoyd, 1998; McMillan & Reed, 1994; Nettles & Pleck, 1996; Roth and Brooks-Gunn, 2000; Wang, Haertel and Walberg, 1994; Werner & Smith, 2001).

Parents, who impart values of optimism, hope, educational achievement and high expectations to their children had adolescents who were more resilient (Garbarino, Dubrow, Kostelny & Pardo, 1992; Haertel & Walberg, 1994; Masten & Coatsworth,

1998; McCubbin, McCubbin, Thompson & Thompson, 1998; Ngo & Malz, 1998; Sandefur, 1998; Wang, Cowen, Wyman, Work, Kim, Fagen, & Magnus, 1997).

The ability of families to be able to offer their offspring greater economic stability was an important protective factor (Garcia-Coll, Lamberty, Jenkins, McAdoo, Crnic, Wasik & Garcia, 1996; Gore & Eckenrode, 1996; Masten & Coatsworth, 1998; Sameroff, 2000). Likewise, a secure loving relationship between parenting figures has been shown to be an enduring protective factor for their children (Cicchetti & Lynch, 1993; Emery & Forehand, 1996; McCubbin, McCubbin, Thompson & Thompson, 1998; Rutter, 1999,1989; Wang, Haertel & Walberg, 1994; Werner, 1986).

Regarding the 25 risk factor variables, all were significant in at least one regression equation with the exception of the variable personality differences with parents. It was interesting that the western as well as the Japanese risk factors had such deleterious effects. There seems to be many risks that are harmful to both western and Japanese youth.

The risk factors that have been discussed in the Japanese press, involvement in Enjo Kosai, having a mother who is involved in Terekura, having a father who visits Fuzoku and parental gambling, were present and had a harmful effect on the youth of the nation. It is hoped that this research will initiate the discussion of these unprecedented findings in Japan.

This study employed an ecological framework to both conceptually and operationally organize the protective and risk factor variables. The ecological structure guided the creation of the protective and risk factors instruments and the evaluation of the data. In both the protective and risk factor instruments, variables were identified as either

being internal or developmental variables or variables that were apparent in the context of the family microsystem, school microsystem, neighborhood microsystem or peer microsystem. Using an ecological framework in the evaluation of the data allowed the multi-contextual appraisal of the respondents to emerge. Furthermore, the macrosystemic influences of Hip Hop Culture and television viewing were also investigated. Thus, the study benefited from the exploration of the multi-faceted dimensions of the respondents through the use of an ecological perspective.

Furthermore, splitting the sample by gender was an important process to better illuminate the influence of the protective and risk factors. Three protective factors were important for both sexes for the same outcome. They were social network, partner relationship, and parents who impart values. Therefore, the other eleven predictive protective factors were not apparent for both sexes for the same outcome. Associations would have been masked if they had not been evaluated by gender. This is an important contribution to better understand that protective factors may be more important to one gender for a specific outcome rather than as a protective factor to both sexes for a particular outcome. This insight could be used to create prevention programs that target gender specific interventions.

More of the risk factor variables were predictive for both the female and the male sample for a particular outcome. The variables that were predictive were having a history of physical illness, a history of sexual abuse, involvement in Enjo Kosai, confusion over sexual orientation, alcohol use, living in a neighborhood that was not safe, being bullied, having a parent who was depressed, having a parent who was not aware, having a parent who was not around, having a mother that was involved in Terekura, and increased

viewing of violence or sex on television were predictive for both sexes for particular outcomes. However, the majority of the risk factor variables (13/25) were predictive by gender for particular outcomes. This is an important new finding to consider, in that for particular outcomes specific risks were more deleterious by gender. This seems to concur with recently published research by the National Center on Addiction and Substance Abuse at Columbia University (Califano, 2003) that posits the risks that were predictive of females drug, alcohol and tobacco use were different than the risks associated with male drug, alcohol and tobacco use. This also may have ramifications for intervention programs to focus on the prevention of risks by particular gender and not general risks.

Interestingly, there was not a particular protective or risk factor variable that was a significant predictor for every outcome. Certain risk or protective factor variables were associated with specific outcomes, but no protective or risk factor variable was a significant predictor for all outcomes. However, one risk variable, living in a neighborhood that was not safe, was predictive in all the equations except for the outcome internalizing behavior. Different protective and risk factors were more or less salient for various outcomes.

Furthermore, the constellation of risk and protective factors variables for each outcome by gender was unique. Not only was there not a particular protective or risk factor variable that was predictive for all outcomes, the combination of protective factor variables and risk factor variables was distinct for each outcome by gender. Thereby, there was not a "one size fits all" grouping of variables. This coincides with Luthar, Cicchetti and Becker (2000) review of resilience literature that resilience is often limited to a particular domain and not across all areas of an individual's life.

To further understand the findings, they will be discussed in a cultural context.

## Cultural Interpretation of the Findings

There is an old Japanese saying, "The nail that sticks out gets pounded down." This saying reflects many Japanese social rules and morays. Japanese corporations, businesses, universities, and public schools all promote the idea of interdependence where harmony and common good are valued over personal gain (Crocker et al., 1994; Kitayama & Markus, 1994; Markus & Kitayama, 1991; Reid & Deaux, 1996; Morling et al., 2002; Sugimura, 2001). The difference between a culture that encourages individuality and a culture that encourages interdependence is highlighted in the recent studies by Kitayama (2001, 2000) that compared U.S. and Japanese college students. He found that European-American students believed that they were unique, and separate from any particular context. However, Japanese students believed that they were relational and embedded in the context. Furthermore, the American respondents were motivated to influence their surrounding and be a source of action, whereas, their Japanese counterparts were motivated to fit-in and adjust to their surroundings. This ability to adjust is very important to resiliency. However, being too malleable may be a risk in itself. As noted in the study, a lack of autonomy and personal myth in women was associated with sexual activity.

Japanese ethnographers have often discussed the Japanese personality as a mixture of an outside persona and an inner self of feelings and motivations. It has been said, "Every Japanese wears a mask" (Smith, 1997, p. 35). This mask is used to conceal one's true feelings in order to become better integrated in the group and more similar to other group members.

The desire for harmony or sameness within the Japanese culture can also mean intolerance of differences. Sakamaki (1996) states, "In a society where conformity is everything, no stigma weighs heavier than the curse of being different" (p. 291). Shame becomes an integral part of the culture. Ruth Benedict (1946) also discussed Japan as a shame culture; she stated, "True shame cultures rely on external sanctions for good behavior, not as true guilt cultures do on internalized convictions of sin" (p. 8). However, it has been postulated that shame for the Japanese is not entirely a negative emotion, but may be, in fact, a powerful motivator (Kitayama & Markus, 1994). It has been reported that when failure occurred and shame was felt by Japanese students, they were more persistent at the follow-up task (Heine et al., 2002).

The Japanese are shamed when they have committed a transgression of behavior or decorum, especially when it involves someone of higher status. "Enryo" is a Japanese term that it used to discuss the dynamic of wearing the mask in status relationships (Arnault, 2002). It has been postulated that Japanese children by the age of 12 are well aware of the social hierarchy that permeates all social interactions and their place in that hierarchy (Van Wolfren, 1990). It is a grave social offense to disclose one's true feelings in relationships of unequal status. Being servile and agreeable is all-important, and negative repercussions for oneself and for one's family would result if the social edict of enryo was not followed. Therefore, wearing the mask is not only important for self-preservation as a member of a larger group, but also for the preservation of the family group.

This desire for servitude, agreeableness, and personal sacrifice for the greater good has been used in the Japanese work world with great effect on productivity and

loyalty. However, for the developing child, the work world is an exosystem (Bronfenbrenner, 1979). A study has been conducted since the 1960's in the Japanese press to determine how "salarymen" rank the importance of their company and their family; it has been found that when the two microsystems are in conflict, it is the family microsystem that must adapt to the changes (Van Wolfren, 1990). Therefore, it is not surprising that the paternal relationship was never a significant protective factor in the study. Nearly fifty percent (49.5%) of the post-secondary students reported still seeing their mothers daily, but only 1.5 percent see their fathers daily. Likewise, it is for this reason that the lack of the maternal relationship had such negative repercussions for the respondents, especially in the case of delinquency.

It is, however, under the mask, that so much is felt. It is believed that this study has tapped into many of the feelings that are beneath the mask. Prior to receiving the survey, there was usually a great deal of discussion of privacy. Once the respondents had been assured that this information would not be able to be traced back to them, they were very eager to participate. Many respondents were amazed that people wanted to know what they really thought. Others found the task difficult because they had never been asked many of the questions about their inner feelings. This is particularly interesting because the Japanese students are the quintessential test takers. Many respondents have taken a battery of tests on a weekly basis since elementary school. But none had ever been asked to take a survey that asked them what they truly thought and were told that any answer would be correct. Some questions were met with mild shock or giggling. The high rate of participation can also be interpreted as the desire to lift the mask and to share their feelings, motivations and personal history under the safety of anonymity.

Some of the research results will be further discussed in the context of culture by outcome variable.

*Internalizing Behavior*

This pounding of the societal "nail" for compliance and uniformity can also be viewed in the school setting in the form of bullying. It is widely reported that bullying is a large problem in the Japanese schools (Van Wolfren, 1990). The respondents in this survey reported that over half (54.1 %) had been bullied in school. Furthermore, in Japan bullying is often seen as the fault of the individual who has been bullied because she had not effectively learned how to fit in. It has also been documented that bullying is not just perpetrated by students, but by teachers as well (Kerr, 2001, Van Wolfren, 1990). With the pressure to conform and the self-knowledge of being different, it seems understandable that the connection between being bullied and internalizing behavior was significant.

Furthermore, the association between high levels of self-efficacy, moral development and internalizing behavior at first seems to be contrary to expectations. However, it may be viewed as more understandable in regard to the Japanese educational system. The Japanese Ministry of Education's mission is to create students who are loyal, competent and diligent (Dower, 1999). Furthermore, the Japanese student is told what to do and how to think throughout their entire tenure in the educational system; this begins in kindergarten and continues to the conclusion of university education (Fukuda, 1996). The Japanese have neglected to teach students to be analytical, creative, to see connectivity or to take personal responsibility (Kerr, 2001). So that, those students who are using greater connectivity and personal responsibility, which are behaviors that have

not been nurtured and extolled in Japan would be outside the mainstream of Japanese society. However, these behaviors would engender both increased self-efficacy and moral development. Because of that undesirable societal position of being outside mainstream Japanese society, the individuals that have high self-efficacy and moral development scores may be at greater risk for internalizing behavior.

*Delinquency*

In Japan, if behavior cannot be contained through following the rules or by coercision, then more rules need to be created. Therefore, if the current "hammer" is not working to control undesirable behavior, then one needs to find a hammer that is bigger and can be wielded with greater force. In fact, it has been stated that the number of school rules and regulations today are even greater than when Japan was at the pinnacle of military fanaticism in the 1930's and 1940's (Kerr, 2001). Japanese students' behaviors that do not conform to proper conduct are continually held to an even more stringent set of rules. It was recently reported that as Japanese schools try to combat more defiant teenage behavior, they have become even more punitive (Kerr, 2001). In the extreme, it has been suggested that incarceration or labor camps should be used as a means of dealing with delinquent youth (Van Wolfren, 1990; Shukan, 2002).

A recent phenomenon called "kireru" or snapping is on the rise; after years of following rules, the adolescent snaps and no longer follows or responds to the dictates of Japanese society (Greenfield, 1995, 2002). It is this growing kireru group that dresses outside of cultural norms, colors their hair vivid shades, writes graffiti on public buildings, races their motorbikes through crowded streets, and is in school to have fun, not to better themselves. They no longer believe that working hard will improve their

future earnings or station in life. They did not excel in school early in their life, so they did not get into the "good" junior high schools or the "good" high schools or the "good" universities, and will not get the "good" jobs. They are destined to be second-class citizens, and they know it. They are the face of Japanese disenfranchised youth. Instead of being subservient and accepting their lot in life as has been traditionally prescribed by enryo, they have instead completely opted out. It is suspected that the regression equations for delinquency were so robust because they were tapping into some of the kireru phenomenon.

Mainstream Japanese society is perplexed about how to control this unruly and unorganized loose network of kireru youth. However, the kireru are not a single unified group or movement. Most are content to scoff at mainstream society, but not to change it. It may also be that the kireru youth lack the knowledge of how to make changes or to even imagine that they have power to make changes in society.

However, these kireru are at risk for becoming hardened criminals. The recruitment of these delinquent youth by organized crime (Yakuza) has been documented in Japan for some time (Mugushima, 1985; Saga, 1991; Van Wolfren, 1990). Therefore, it would seem that it would be in society's best interest to redirect these youth when they may still have an opportunity to do so.

*Drugs*

It is also the kireru group that is more likely to experiment with drugs. Furthermore, drugs have become a big and profitable business for the Yakuza (Saga, 1991). Even with an increased number of laws trying to combat drug use and increased penalties and lengthy incarceration for possession of even small quantities of drugs, the

number of drug users is suspected to be on the rise in Japan. This study found that 8.4% of the female sample and 20.7% of the male sample had experimented with drugs. These numbers were much higher than was expected.

*Sexual Activity*

It is probably the Japanese sexual behaviors that are the most difficult to understand and seem the most contrary to the perception of the Japanese. However, Japanese sexual behaviors have recently come to the attention of UNICEF. End Child Prostitution in Asian Tourism (ECPAT), a non-governmental organization that works in collaboration with UNICEF and the European Union World Conference Against Commercial Sexual Exploitation of Children has been compiling records of child prostitution in Japan. Japan's Enjo Kosai is a very unusual phenomenon. It is the only country in Asia where child prostitution is not related to poverty (EPCAT, 2003). However, it seems to be widespread. In a recent study of college women in Tokyo, 70% of the women acknowledged that in their childhood they had experienced older men trying to solicit them for sexual activity (Kakuchi, 2001). Nothing is known about the male Enjo Kosai. This study is the first that has results about this phenomenon.

Amazingly, until 1999, the age of consent in Japan was 13. Perhaps by having the age of majority so young, Japanese men did not feel any qualms about propositioning junior high school girls. However, child pornography and prostitution laws were enacted in 1999 to redefine a child as a person less than 18 years of age (EPCAT, 2003).

In Japan, there is a continuum of aberrant sexual behavior involving children; it moves from active participant involved in Enjo Kosai to voyeur involved in purchasing child pornography. EPCAT (2003) reported that 80% of the available world market of

child pornography is produced in Japan. Some of these children are trafficked from other countries to be filmed in Japan. A study in 1996 by Kyofukai, a Japanese human rights organization, found that child pornography was openly available in 97% of Japanese mainstream bookstores. Though laws on child pornography were created in 1999, the child pornography industry in Japan has not been dismantled, but has become more secretive and is now using the Internet to transmit their material.

This fascination with sex with children has also spawned a travel industry that caters to Japanese men who go on sex holidays. Japanese men constitute the largest group of sex tourists in Asia (EPCAT, 2003). It has been documented that they travel to Thailand, the Philippines, Australia, South Korea, Sri Lanka, and Hong Kong as sex tourists (EPCAT, 2003). Until 1999, these holidays were all openly advertised in mainstream Japanese newspapers. The new laws on child prostitution also apply to Japanese nationals who engage in child prostitution outside of the country.

This fascination with children as sexual beings is extremely disturbing. Until recently, Japanese society has showed tacit approval of sexualizing children. The 1999 laws regarding child prostitution and pornography are an important first step. However, there still are no comprehensive sexual education programs or activities that discuss children's rights in Japan for adults or children.

In this study, it was found that sexual behaviors on the part of the parent contributed to the respondents' internalizing behavior, delinquency, drug use, alcohol use, greater sexual activity, and younger intercourse age. Furthermore, the sexual victimization of the respondents seem to be a factor in predicting internalizing behavior, drug use, greater sexual activity and younger intercourse age. It is hoped that this study

will illuminate the destructive effect that these sexual activities have on many young Japanese men and women.

This is one of the first Japanese studies that has posed so many difficult questions. It is also interesting that an outsider, a "gaijin", asked these questions. A certain amount of latitude seems to have been given to discuss issues with a stranger that they have not discussed with their fellow countrymen and women. Perhaps the rules of enryo are not so strictly self-enforced with a foreigner, or perhaps many feel that it is time to talk about these issues.

## Instrument Development

After investigating many standardized instruments, it was concluded that none effectively assessed the many protective factors found in the resilience literature. It was decided to create an instrument that consolidated the research findings into one measure. The HEPFYA instrument was created to assess both internal and environmental protective factors. The environmental protective factors were divided by the microsystems that youth inhabit: family microsystem, peer microsystem, school microsystem, and neighborhood microsystem. Face and content validity was achieved by the instrument's adherence to protective factors found in the research literature.

In the best situation, the instrument would have been piloted prior to its use in a large sample, but due to time constraints, the initial testing was with the Japanese sample. In the beginning, there were 31 subscales. After reorganizing some of the subscales through factor analysis and preserving some of the subscales that closely matched prior research literature and made logical sense, 26 subscales remained. Cronbach's alpha was computed to assure that the remaining 26 subscales had adequate reliability. The

subscales that were omitted due to low reliability scores were cognitive ability, trust, and the physical environment of the school. Cognitive ability is a protective factor that has been extensively discussed in the research literature (Bogenschneider, 1998; Emery & Forehand, 1996; Farrington, 1995; Garbarino, Dubrow, Kostelny & Pardo, 1992; Garber and Little, 1999; Garmezy, 1993; Gilvarry, 2000; Hawkins, Catalano and Miller, 1992; Kumpfer, 1999; Masten & Coatsworth, 1998; Rende & Plomin, 1993; Rutter, 1999, 1989; Skuse, 1984; Werner, 1994;Werner and Smith, 2001, 1982; White, Moffitt & Silva, 1989; Yule, 1993) but it was not reliable in this study. Perhaps cognitive ability needs to be assessed as a performance test and not as self-report items, or perhaps what the research literature is assessing is "street smarts" and not merely cognitive ability. Other subscales were removed because they were too similar to subscales that had stronger reliability scores; these were attachment to mother and attachment to father.

It was hoped that some of the subscales would have higher alpha scores, but they were generally in the acceptable range. Some of the subscales that had alpha scores from .5-.6 actually were significant predictors of the outcomes; these included the variables emotional intelligence (.54), mental flexibility (.54), moral development (.55), and supportive friends (.54). These subscales may need to be refined but seem to measure important concepts. Other subscales that had high alpha scores were not predictive of the outcomes; these included physical beauty (.80), spirituality (.76), paternal relationship (.83), and social capital (.84). Perhaps these subscales are not relevant for a Japanese sample and would have predictive ability if used with a different population.

Before the HEPFYA instrument is used again, some revisions need to take place. It would be an easier instrument to complete if it was shorter. For some individuals, the

protective and risk instruments took nearly one hour and a half to complete. In its present long format, it could be problematic to give the instrument to a population that is not as diligent and task oriented. Though test fatigue was not apparent with this sample, it could be a problem with other populations.

The risk factor instrument LESJY was compiled from four different sources. Items from the Teen Assessment Project Survey, TAP, (Small, 2000) were combined with items found in the National Longitudinal Study, NLSY, (2000) with items that were found in the risk literature in North America, Europe, New Zealand, and Australia. In addition, items that were of particular concern in Japan were also included. Multiple versions were reviewed in Japan to assure that the risks would be understood by Japanese youth. This was important, because without risk, there cannot be resilience (Garmezy, 1993, 1985; Henderson & Milstein, 1996; Rutter, 1989, 1987; Wang, Haertel, & Walberg, 1994).

In general, the LESJY instrument subscales had higher Cronbach's Alpha scores than the subscales from the HEPFYA instrument. It may be surmised that because the measure incorporated two instruments, the TAP and the NLSY, that have been used and revised for a long time that it is inherently a more reliable instrument. Furthermore, the LESJY subscales were all predictive in at least one outcome in the regression equations with the exception of the variable personality differences with parents.

In the future, if the LESJY is to be used in Japan again, it should be further revised to include the most current risks affecting the Japanese public. One risk that was not included in the initial survey, but would have been interesting, is the "gaming" trend. It has been reported that Japanese youth lock themselves in their rooms for days to play

video games; this seems to be the adolescent version of the Pachinko gambling. Furthermore, it would be interesting to ask questions that would better illuminate the kireru (snapping) phenomenon.

If the risk instrument is to be used with a non-Japanese population then the content that is pertinent to the Japanese population would undoubtedly need to be removed, and risks that are considered deleterious to that population included. It is very important that the risks assessed are actually considered risks to members of the population and not merely the researcher (Luthar, Cicchetti & Becker, 2000). As was done in this instance, it would be beneficial to have a knowledgeable member of the population refine the risk instrument prior to its use. It would also be beneficial if the risk instrument did not take as long to complete, and therefore, was quicker to administer. It, however, may be difficult to reduce the size; the LESJY risk instrument actually grew every time the Japanese collaborators reviewed the instrument due to their desire to add further items.

## Limitations of the Research

There were some limitations of this study. All of the information came from one source, the respondents. This allows for only the respondent's perception of the events. Events are always interpreted through the individual's lens and may not be a factual account of the events. Selective remembering or forgetting, especially if the memory is unpleasant, may affect the recall of events. With the added viewpoint of another individual, perhaps greater understanding could have been achieved. However, by using a large college sample, it was not practical to include parents or teachers as a corroborating source.

Furthermore, shared method variance can be a problem because the same individual completed both instruments. Relations among variables tend to be larger when the same individual completes questionnaires on the predictor variables and the outcome variables.

Another limitation was that the surveys were not well-established instruments, but created by the investigator. This was necessitated by the fact that there were no standardized measures of protective factors nor were there surveys that included the constellation of risk factors that were pertinent to the Japanese population. However, using measures that are not known and generally accepted may produce less convincing results.

Although the sample is fairly representative of college students in one area, generalizability can always be a concern. The sample came from the northern island of Hokkaido and not mainland Japan or the southern islands; thus, the sample may not be representative of all Japanese youth. Furthermore, it would be inappropriate to generalize the results to youth from other Asian countries. Likewise, Japanese-Americans are not embedded in the same social and cultural context, and therefore it should not be assumed that similar findings would be obtained with a sample of Japanese-American youth. It is important to remember that the results came from a particular time and a particular culture.

## Directions for Future Research

At the conclusion of the survey, respondents were given the option to provide separate tracking information. More than half of the respondents gave information of

where they could be contacted in the future. It is hoped that in four years these respondents can be resurveyed to assess their acclimation to adult roles.

The respondents were also asked to answer four qualitative questions that included: "If you could describe yourself in a sentence or two who would you say that you are?" "What about you matters most?" "What makes you the person you are?" and "Who do you want to be in the future?" These questions are adapted from questions that Robert Coles (1990) asked in his interviews with children and adolescents. These qualitative questions were removed from the original dissertation due to the amount of the data to be reviewed. However, it is hoped that these qualitative questions will be analyzed in the future and then compared to the quantitative results.

It is also hoped that the protective factor and risk factor instruments can be refined and used again. Neither instrument has ever been used with a U.S. sample. Furthermore, it would also be very informative to use the instruments with a U.S. minority sample. Equally interesting would be completing the evaluation of protective and risk factors in another part of the world. In each of these possible venues, it would be useful to know if the relations among risk factors, protective factors and outcomes vary as a function of gender of the respondents.

# Appendices

## Appendix A

### Haddow Ecological Protective Factors for Young Adults (HEPFYA)
### Julie Haddow

**Please respond to each question by how often it describes you or your situation:**
**4=Always, 3=Most of the Time, 2=Sometimes, 1=Occasionally, 0=Never**

I do not consider myself to be smart.

I have trouble remembering things.

I can figure out how things work.

People think that I have a lot of common sense.

My friends consider me to be attractive.

I consider myself to be attractive.

I am less attractive than my friends.

I have received positive attention because I am attractive.

I have a high activity level.

I have regular sleeping and eating patterns.

I am easily distracted.

It is hard for me to adapt to change.

I have a short attention span.

I am uncomfortable meeting new people.

I am in a good mood.

My family was unable to take care of my needs for food, shelter and clothing.

My family has money to purchase things we do not need but want.

My family used its money to take us out to see interesting events and places.

I consider my family to be well off financially.

I am able to make people laugh when they are feeling down or stressed.

My friends don't think that I am funny.

I feel that having a sense of humor helps me out.

I can find something to chuckle about even when things look bleak.

My spiritual beliefs help guide my decisions.

I feel like God has a plan for me.

I feel that my prayers are not heard.

My sense of spirituality gives me hope for the future.

I feel that with God I am not alone.

I believe that in general I will be treated fairly.

If you trust people you will likely get hurt.

In general, I believe that I can trust most people.

I know my own feelings and emotions.

I have trouble handling my own emotions appropriately.

I can wait to get what I want.

I know how to motivate myself so that I will finish what I started.

I am impatient.

I am good at understanding how others are feeling.

I have trouble making and keeping friends.

I have friends of both sexes.

I feel that I should not ask for help from others.

I do not know how to use community resources.

I do not ask people for help because I am afraid of being turned down.

I feel that I know how to " work the system" to get my needs met.

It is hard for me to change my position on a topic.

I think about ideas from different points of view.

I am open to new ideas.

I am uncomfortable around people who think differently than me.

I have a strong sense of shame if I do something wrong.

I think my needs should be taken care of before I worry about others' needs.

I think I should do what is right even if it will make me unpopular.

I consider others feelings when I make decisions.

I make excuses for my failures.

I feel guilty if I do not do what I know is right.

When I see others I know able to complete a task, I feel that I can complete a similar task too.

When other people tell me I have the ability to do something, I do not believe them.

If I have been successful in the past, I am usually successful again.

I tend to give up easily.

If I put my mind to it I can be successful.

My parents (OR parent and step-parent OR parent and significant other) argue a lot.

My parents (OR parent and step-parent OR parent and significant other) are committed to each other.

My parents (OR parent and step-parent OR parent and significant other) do not seem to be in love anymore.

I consider that my parents (OR parent and step-parent OR parent and significant other) have a vibrant/healthy relationship.

I feel that my relationship with my mother makes becoming an adult easier.

I feel that if I make mistakes my mother will no longer love me.

I feel that my mother will always be behind me, no matter where I am.

I feel my mother will love me only if I do what she wants me to do.

I feel that my relationship with my father makes becoming an adult easier.

I feel that if I make mistakes my father will no longer love me.

I feel that my father will always be behind me, no matter where I am.

I feel my father will love me only if I do what he wants me to do.

My mother praises me for doing well.

My mother criticizes me or my ideas.

My mother helps me do things that are important to me

My mother blames me for her problems.

My mother makes plans with me and then cancels for no good reason.

My father praises me for doing well.

My father criticizes me or my ideas.

My father helps me do things that are important to me.

My father blames me for his problems.

My father makes plans with me and then cancels for no good reason.

We celebrate birthdays and holidays together as a family.

While I was growing up, I felt that my parent(s) could protect me from some of the bad things happening in the world.

My parent(s) have taught me right from wrong.

My parent(s) gave me spiritual instruction.

My parent(s) believe that hard work will guarantee future success.

My parent(s) believe that I am special.

My personality fits well with my parent(s) personality.

I feel like my parent(s) and I never really connected.

My parent(s) and I have trouble finding common ground with each other.

My parent(s) and I have different expectations for my future.

I feel like I do not fit in at my college.

At college, I can forget about my problems.

I have the opportunity to share my own thoughts in my classes.

At my college good work is not rewarded.

I feel like I am learning things at my college that will be helpful in the future.

The style of teaching that is presented in my classes is interesting to me.

My college is not well maintained.

I feel safe at my college.

In the neighborhood I grew up, I knew my neighbors names.

My neighbors where I grew up had different values than I did.

Where I grew up, I visited my neighbors to talk to them.

In my neighborhood where I grew up, I considered myself to be part of a community.

People in the neighborhood where I grew up watched out for each other.

My neighborhood where I grew up was well maintained.

In my neighborhood where I grew up, if someone saw me do something wrong they would tell my parent(s).

Regarding your partner, how often is she/he fair and willing to compromise when you have had a disagreement?

Regarding your partner, how often does she/he insult or criticize you or your ideas?

Regarding your partner, how often does she/he express affection or love for you?

Regarding your partner, how often does she/he encourage or help you to do things that are important to you?

Regarding your partner, how often does she/he blame you for his/her problems?

**What is your opinion regarding each of these statements?**
**4=strongly agree, 3=agree, 2=neither disagree or agree, 1=disagree, 0=disagree strongly**

I think highly of my mother.

My mother is a person I would like to be like.

I really enjoy spending time with my mother.

I think highly of my father.

My father is a person I would like to be like.

I really enjoy spending time with my father.

I have a friend that I can trust to give me good advice.

I have no friends that really know me.

I feel that my friend(s) would do anything to help me out.

I feel that my friends are only interested in what I can do for them.

In uncertain times, I usually expect the best.

I rarely count on good things happening to me.

I am always optimistic about my future.

I hardly expect things to go my way.

I believe that even when I have problems, things will turn out OK.

I believe that I will have a happy life.

I believe that if I work hard I will be successful.

I do not have a plan for my future.

I daydream about what I will be doing in the future.

I do not believe the things that I am doing now will have any influence on my future success.

I believe that I can make my plans a reality.

At college, there is no instructor that I would feel comfortable to go to for advice.

At college, there is an instructor that I like to talk to about my studies.

At college, there is an instructor that I would like to be like when I am an adult.

At college, there is an instructor that has taken a particular interest in me.

If family members are treating me poorly, I have the right to get away from them.

If friends are treating me poorly, I have the right to get away from them.

If my boyfriend/girlfriend is treating me poorly, I have the right to get away from him/her.

I believe if something bad happened to me in the past it does define who I am now.

I allow myself to be taken advantage of.

If friends want to do something that might get me in trouble, I stay away from them.

**How many people do know or have you approached:**
**0=no one,1=1 person, 2=2 people, 3=3 people, 4=4 or more people**

I know _____ people I can count on to help me out if I need money.

I have gone to _____ people to ask for money.

I know _____people I can go to if I need advice.

I have gone to _____ people for good advice in the past.

I know _____ people I can count on to listen to me if I feel sad.

I have gone to _____ people before when I needed to talk.

I know _____ people that can help connect me to new groups of people.

I know _____ people that can help connect me to future jobs or careers.

I know _____ people that can help me make connections to important people.

I know _____ people that can help me get important information.

## Appendix B

### Life Events Survey for Japanese Youth (LESJY)
### Julie Haddow
### With material adapted from the Teen Assessment Project (TAP) Survey written by Steven Small, 2000 and the NLSY 79, 2000

**How often did these things happen while you were growing up?**

**4=Always, 3=Most of the Time, 2=Sometimes, 1=Occasionally, 0=Never**

My mom was very sad or depressed

My dad was very sad or depressed.

My mom was stressed out

My dad was stressed out.

My mom had friends to help her out.

My dad had friends to help him out.

My mom had family to help her out

My dad had family to help him out.

My mom was not aware of what I was doing.

My dad was not aware of what I was doing.

I was hit when I misbehaved.

I was hit when I did poorly in school.

I was hit when I did not give my parents respect.

I was hit when I embarrassed my family.

I felt lonely.

I did not feel like eating, my appetite was poor.

I had trouble keeping my mind on what I was doing.

I felt depressed.

I felt that everything was an effort.

My sleep was restless.

I felt sad.

I could not get "going".

I watched sexually explicit television shows or movies.

I watched violent television shows or movies.

I did not like myself.

I had a severe physical illness.

I thought about killing myself.

I was confused about my sexual orientation.

My dad ate dinner with me.

My mom ate dinner with me.

My dad was at home when I went to bed.

My mom was at home when I went to bed.

My dad met clients for business meetings after 5:00.

My dad was away from home overnight for business.

My mom drank alcohol to get drunk.

My father drank alcohol to get drunk

My mom favored my sibling(s) over me. (If you have no siblings do not answer.)

My dad favored my sibling(s) over me. (If you have no siblings do not answer.)

My dad gambled.

My mom gambled.

My dad's gambling caused debts.

My mom's gambling caused debts.

My home was too small for our family.

I listened to Hip Hop music or watched Hip Hop music videos.

I wore Hip Hop clothes.

I considered myself to be part of the Hip Hop culture.

My neighborhood was not safe after dark.

Street gangs operated in my neighborhood.

I knew people who were involved with street gangs.

I was involved with street gangs.

Mafia (Yakuza) operated in my neighborhood.

I knew people who were involved with the mafia (Yakuza).

I was involved with the mafia (Yakuza).

**How often have you used the following during the past year?**
**4=Daily, 3=weekly, 2=1-3 times per month, 1=once or twice this year, 0=never**

I use tobacco.

I use alcohol (beer, wine, whiskey, sake).

I use marijuana.

I use inhalants (paint thinner, lighter fluid).

I use prescription drugs for non-prescription purposes.

I use cocaine/crack.

I use steroids.

I use ecstasy or other designer drugs.

**How old were you the first time this occurred?**
**0=never occurred, 1=13 or younger, 2= 14-15 years old, 3=16-17 years old, 4=18+years old**

The first time I had sexual intercourse I was_____ years old.

The first time I had oral sex I was_____ years old.

The first time I smoked cigarettes I was_____ years old.

The first time I got drunk I was_____ years old.

The first time I used drugs I was_____ years old.

The first time I stole something I was_____ years old.

**How often has the following occurred:**
**1= 1 time, 2=2 times, 3=3 times, 4=4or more times, 0=Never**

I was touched inappropriately by a stranger (chikan) on a train or a bus.

I was pressured to have sex when I did not want to.

I was sexually abused by an adult.

I had sex or performed sexual acts to obtain things I wanted (onjukosai).

I was bullied at school.

I was undervalued because of my gender.

I shoplifted.

I took money from my parents without asking them.

I vandalized public or private property.

I saw my father hit my mother.

I heard my father be verbally abusive to my mother.

I saw my mother hit my father.

I heard my mother be verbally abusive to my father.

I believe that my father has gone to fuzuko.

I believe that my mother was involved with phone sex (terekura) to meet people.

I believe that my mother was involved with phone sex (terekura) to make money.

I had problems with the police.

My dad was incarcerated.

My mom was incarcerated.

My family moved.

I spent time at a youth center (jidosodanjo).

I have had _____ sexual partners.
0=none, 1=1-2, 2=3-5, 3=6-9, 4=10 or more

What type of birth control do you use:
0=None, 1=condom, 2=Foam, jelly, sponge, suppository, 3=Birth control pills, 4=pulling out, not ejaculating inside

**What percentage of your peers do you believe does the following things:**
**1=Almost none (less than 10%), 2=About 25%, 3=About half (50%), 4=About 75%, 5=Almost all (more than 90%)**

Smoke cigarettes.

Get drunk at least once a month.

Belong to a gang.

Have been in trouble with the police.

Have used marijuana, inhalants or other drugs.

Go to rave parties.

Are involved in Hip Hop culture.

Have had sexual intercourse.

Have had more than 10 sexual partners.

Were involved in onjukosai.

Are unsure what they want to do with their lives.

Have thought about different careers.

Have trouble with their parents.

Have trouble with their boyfriend/girlfriend.

Are lonely.

Are depressed.

Have thought about killing themselves.

Have attempted suicide.

Use birth control.

Are happy.

Enjoy life.

Look forward to the future.

Have a plan for the future.

Have religious beliefs.

**Thank you for your truthfulness and your time!**

## Appendix C

### Demographic Information
### Julie Haddow

Please answer the following:
1-My age is 1=18, 2= 19, 3=20, 4=21, 5=22,

2-My gender is 1=female, 2=male

3-My college/university name is _____

4-There are____students at my college/university. 1= 1-1000, 2= 1001-5000, 3=5001-10,000, 4= 10,001-20,000, 5=20,001+

5-My major is: 1= Social Science, 2=Science, Engineering or Medicine, 3=Business, 4=Humanities or Art, 5=Vocational

6-This college/university was my 1=1$^{st}$,2= 2$^{nd}$, 3=3$^{rd}$, 4=4$^{th}$,5= 5$^{th}$ choice.

7-This college/university was my parent's 1=1$^{st}$,2= 2$^{nd}$, 3=3$^{rd}$, 4=4$^{th}$,5= 5$^{th}$ choice.

8-My high school name was_____

9-There were 1=1-50, 2=51-150, 3=152-300, 4=301-600, 5= 601+ in my high school graduating class.

10-I currently: 1= live in a dormitory, 2=live by myself in a apartment, 3=live with friends in an apartment, 4=live with my family, 5= live with another family

11-The highest education my mother graduated from: 1=8$^{th}$ grade, 2= high school, 3=vocational program, 4=college, 5=graduate school

12-I believe that my mother enjoyed school. 1=always, 2=most of the time, 3=sometimes, 4=occasionally, 5=never

13-I see my mother: 1=daily, 2=weekly, 3=occasionally, 4=I do not have contact with my mother, 5=my mother is deceased.

14-The highest education my father graduated from: 1=8$^{th}$ grade, 2= high school, 3=vocational program, 4=college, 5=graduate school

15-I believe that my father enjoyed school. 1=always, 2=most of the time, 3=sometimes, 4=occasionally, 5=never

16-My parents are divorced. 1=Currently in progress, 2=1 year ago, 3=3 years ago, 4= 5 years ago or more, 5= never

17-I see my father: 1=daily, 2=weekly, 3=occasionally, 4=I do not have contact with my father, 5=my father is deceased.

18-I have, 1=1 sibling, 2= 2 siblings, 3= 3 siblings, 4=4 or more siblings, 5=No siblings

19-Growing up, I lived with all my siblings. 1= Always, 2=most of the time, 3=sometimes, 4= never, 5= No siblings

20-The sibling that is closest in age to me is: 1=1 year or less older/younger than I am, 2= years older/younger than I am, 3=3 years older/younger than I am, 4 or more years older/younger than I am, 5=no siblings.

21-I believe that my family receives social service money from the government. 1=Currently, 2=1 year ago, 3=5 years ago, 4=10 years ago or more, 5= never

22-The adults in the family where I grew up consisted of (for this answer only, mark all that apply):
1=biological mother, 2=biological father, 3= Grandparent(s), 4=other relatives, 5=other non-relatives

## Appendix D

### Consent Form

This study is being conducted to better understand the experiences that Japanese youth have had as they have grown up and how these experiences have impacted their transition to adulthood. The information gained will give insight into the experiences currently affecting Japanese youth and the attitudes, opinions and strengths of Japanese youth.

1. You are freely consenting to take part in this study being conducted by Julie Haddow, a doctoral student at Michigan State University, East Lansing, Michigan, United States of America under the supervision of Dr. Tom Luster and Dr. Carl Taylor from the Department of Family and Child Ecology at Michigan State University.

2. You will be asked to answer written questions regarding your childhood, your family, your educational experiences, your friendships, and your beliefs.

3. You are being asked to answer written questions that will take approximately 45 minutes to 1 hour 30 minutes to complete.

4. Your privacy will be protected to the maximum extent allowable by law.

5. If you have any questions about the study, please contact:

Julie Haddow, email: haddowju@msu.edu, regular mail: 13 Human Ecology, Michigan State University, East Lansing MI, 48824, USA, phone: (517) 381-0641

Dr. Tom Luster, email: luster@msu.edu, regular mail: 13 Human Ecology, Michigan State University, East Lansing, MI, 48824, USA , phone: (517) 432-3323

Dr. Carl Taylor, email: taylor36@msu.edu, regular mail: Suite 27 Kellogg Center, Michigan State University, East Lansing, MI, 48824 USA, phone: (517) 353-6617

6. If at any time you have questions or concerns regarding your rights as a study participant, or are dissatisfied with any aspect of this study, you may contact- anonymously, if you wish- Ashir Kumar, M.D., Chair of the University Committee on Research Involving Human subjects (UCRIHS) by phone: (517)355-2180, fax: (517)432-4503, email: ucrihs@msu.edu or regular mail: 202 Olds Hall, East Lansing, MI, 48824, USA

7. You can stop participating in the study at any time.

8. You have the opportunity to request the results of this study.

9. Your signature below indicates your voluntary agreement to participate in this study.

Signed_____

Date_____

**Appendix E**

**Participant #_____**

**Tracking Information**

We would like to contact you in the future to ask you more questions.

Would you be willing to answer questions in the future? Yes No

If you are willing to be contacted in the future can you please print in romanji your name and your complete address:

Name_____

Address_____

_____

_____

Your Date of Birth_____

Your College Name_____

If we can not locate you at this address would you be willing to allow us to contact your mother? Yes No

If you are willing to allow us to contact your mother in the future can you please print in romanji your mother's name and her complete address:

Your Mother's Name_____

Address_____

_____

_____

If we can not contact your mother at the above address is there someone else that you would be willing to allow us to contact? Yes No

Name_____

Address_____

_____

MICHIGAN STATE
UNIVERSITY

March 29, 2002

TO: Tom LUSTER
13 G Human Ecology

RE: **IRB# 02-240** CATEGORY: EXPEDITED 2-7
**APPROVAL DATE: March 27, 2002**

TITLE: EVERYDAY RESILIENCE IN JAPANESE USE

The University Committee on Research Involving Human Subjects' (UCRIHS) review of this project is complete and I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, **the UCRIHS approved this project.**

**RENEWALS:** UCRIHS approval is valid for one calendar year, beginning with the approval date shown above. Projects continuing beyond one year must be renewed with the green renewal form. A maximum of four such expedited renewals possible. Investigators wishing to continue a project beyond that time need to submit it again for a complete review.

**REVISIONS:** UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please use the green renewal form. To revise an approved protocol at any other time during the year, send your written request to the UCRIHS Chair, requesting revised approval and referencing the project's IRB# and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.

**PROBLEMS/CHANGES:** Should either of the following arise during the course of the work, notify UCRIHS promptly: 1) problems (unexpected side effects, complaints, etc.) involving human subjects or 2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

If we can be of further assistance, please contact us at (517) 355-2180 or via email: UCRIHS@msu.edu. Please note that all UCRIHS forms are located on the web: http://www.msu.edu/user/ucrihs

Sincerely,

Ashir Kumar, M.D.
UCRIHS Chair

AK: bd

cc: Julie Anne Laser Haddow
4350 Greenwood
Okemos, MI 48864

OFFICE OF
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