FAMILY SUPPORT AND PARENTAL MONITORING AS PROTECTIVE FACTORS
IN PREVENTING DEPRESSION AND ALCOHOL USE AMONG MEXICAN
AMERICAN ADOLESCENTS

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FAMILY SUPPORT AND PARENTAL MONITORING AS PROTECTIVE FACTORS IN PREVENTING DEPRESSION AND ALCOHOL USE AMONG MEXICAN AMERICAN ADOLESCENTS

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DEDICATION

I dedicate this dissertation to my family who instilled in me the value of education and to Augusta and Venus, for inspiring me to be the social worker that I am. I also dedicate this to my husband and best friend Julio Rivera who reminds me daily that with unwavering determination, dreams are only a few steps away from becoming reality.
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I would like to sincerely thank all of the dissertation committee members for their support and attention during this process. I would especially like to thank Dr. Anastas for her invaluable guidance, patience, and encouragement and Dr. Baer for encouraging me to pursue my interests no matter how challenging the process. Dr Seinfeld and Dr Rosenthal Gelman, I thank you for your kind and firm nudges along the way, gentle reminders of your belief in me.

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This secondary analysis of the ADD Health Study identified risk factors and mediators of depression and alcohol use in a sample of Mexican American adolescents residing across the United States. Risk factors of depression and alcohol use were examined including generational status, age, gender and socioeconomic status. Family support and parental monitoring were examined as protective factors against depression and alcohol use. Results showed that younger, second generation youth, females, and alcohol drinkers experienced higher levels of depression. Aspects of family support protected adolescent girls and youth who used alcohol from experiencing depression. Males and youth with higher rates of depression were at increased risk of using alcohol and drinking alcohol frequently. Aspects of parental monitoring buffered the effects of depression on alcohol use and frequency of alcohol use but did not mediate the effects of gender. Findings provide important theoretical and clinical implications for working with Mexican American youth.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. STATEMENT OF THE STUDY ISSUE</strong></td>
<td>1</td>
</tr>
<tr>
<td>Purpose of the study</td>
<td>1</td>
</tr>
<tr>
<td>Significance of the study</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>II. LITERATURE REVIEW</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitions of Depression and Alcohol Use</td>
<td>7</td>
</tr>
<tr>
<td>Depression</td>
<td>7</td>
</tr>
<tr>
<td>Alcohol Use</td>
<td>9</td>
</tr>
<tr>
<td>Depression in Mexican American Adolescents</td>
<td>9</td>
</tr>
<tr>
<td>Socioeconomic Status</td>
<td>12</td>
</tr>
<tr>
<td>Depression and Gender</td>
<td>14</td>
</tr>
<tr>
<td>Orientation to U.S. Culture and Depression</td>
<td>15</td>
</tr>
<tr>
<td>Alcohol Use in Mexican American Adolescents</td>
<td>18</td>
</tr>
<tr>
<td>Alcohol Use in Mexican American Youth Compared to Other Ethnicities</td>
<td>19</td>
</tr>
<tr>
<td>Alcohol Use and Depression</td>
<td>21</td>
</tr>
<tr>
<td>Socioeconomic Status</td>
<td>22</td>
</tr>
<tr>
<td>Alcohol Use and Gender</td>
<td>23</td>
</tr>
<tr>
<td>Orientation to U.S. Culture and Alcohol Use</td>
<td>24</td>
</tr>
<tr>
<td>Family Support and Parental Monitoring as a Protective Factor for Mexican American Adolescents</td>
<td>28</td>
</tr>
<tr>
<td>Family Support and Parental Monitoring in Mexican American Families</td>
<td>28</td>
</tr>
<tr>
<td>Family Support, Parental Monitoring, and Depression</td>
<td>30</td>
</tr>
<tr>
<td>Family Support</td>
<td>30</td>
</tr>
<tr>
<td>Parental Monitoring</td>
<td>31</td>
</tr>
<tr>
<td>Family Support, Parental Monitoring, and Alcohol Use</td>
<td>32</td>
</tr>
<tr>
<td>Family Support</td>
<td>32</td>
</tr>
<tr>
<td>Parental Monitoring</td>
<td>33</td>
</tr>
<tr>
<td>Orientation to U.S. Culture, Family Support and Parental Monitoring</td>
<td>34</td>
</tr>
<tr>
<td>Family Support</td>
<td>36</td>
</tr>
<tr>
<td>Parental Monitoring</td>
<td>37</td>
</tr>
</tbody>
</table>

| III. METHODOLOGY | 39 |
| Statement of Research Questions | 40 |
| Research Questions | 41 |
| Definition of Concepts | 42 |
| Research Design | 44 |
| Population To Be Studied | 45 |
| Sampling Frame | 45 |
| Nature of the Data | 47 |
Implications for Future Research and Conclusion ........................................ 102
References ..................................................................................................... 105

VI. APPENDICES .......................................................................................... 125
Appendix A: Variables and Measurements .................................................... 125
Appendix B: Transformations of the Dependent Variables ............................ 129
Appendix C: Bivariate correlations of Family Support and Parental Monitoring with Independent Variables ......................................................... 131
# LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demographic Sample Characteristics</td>
<td>61</td>
</tr>
<tr>
<td>3. Means, Standard Deviations, Weighted Means, and Mean Differences by Generational Status on Depression</td>
<td>67</td>
</tr>
<tr>
<td>4. Means, Weighted Means, and Significance Tests for Alcohol Use variables by Generational Status</td>
<td>68</td>
</tr>
<tr>
<td>5. Means, Weighted Means and Significance Tests for Alcohol Use Variables by Gender</td>
<td>71</td>
</tr>
<tr>
<td>6. Correlates of Depression including Demographic Characteristics, Family Support, Parental Monitoring and Alcohol Use</td>
<td>75</td>
</tr>
<tr>
<td>7. Correlates and Odds Ratios of Alcohol Use including Demographic Characteristics, Family Support, Parental Monitoring and Depression</td>
<td>78</td>
</tr>
<tr>
<td>8. Correlates of Frequency of Alcohol Use including Demographic Characteristics, Family Support, Parental Monitoring and Depression</td>
<td>80</td>
</tr>
<tr>
<td>9. Correlates of Social Problems Related to Alcohol Use including Demographic Characteristics, Family Support, Parental Monitoring and Depression</td>
<td>84</td>
</tr>
</tbody>
</table>
CHAPTER I

STATEMENT OF THE STUDY ISSUE

Purpose of the study

The purpose of this study was to identify risk and protective factors for depression and alcohol use in Mexican American adolescents residing in the United States. The study explored the role of family support and parental monitoring as protective factors for depression and alcohol use in Mexican American adolescents and examined how generational status, socioeconomic status, age, and gender may relate to depressive symptoms and use of alcohol in this population. The study also investigated whether family support and parental monitoring increase or decrease with exposure to U.S. culture. This study consists of a secondary analysis of data from Wave I of The National Longitudinal Study of Adolescent Health (ADD Health), which is composed of a nationally representative sample of adolescents (ages 12-18) residing in the United States.

The rationale for the study was that depression and alcohol use among Mexican American youth are hypothesized to be related to the social and emotional experiences of immigrant families, especially post immigration. Several studies indicate that immigrant children and children of immigrants face many stressors that children of U.S. born parents do not. These stressors can have debilitating effects as children and their families adjust to their new environment. These adolescents face a broad spectrum of challenges including pre-migration trauma, managing family disruptions and separations during the migration process, poverty, adapting to new cultural norms, mastering a new language, navigating immigration laws, and re-establishing social support systems (Drachman, 1992; Board on Children and Families, 1995; Aronowitz, 1984; Haskins et al., 2004). While these challenges were not the focus of this study,
Family Support and Parental Monitoring as Protective Factors

they form the context in which adaptation and psychological functioning occur. Such factors can affect adolescent mental health and may also place adolescents at risk for alcohol use.

Although the literature has noted the stressful challenges that Mexican American immigrants face during acculturation, several studies indicate that there is a protective aspect to being foreign-born and that aspects of Mexican culture such as its emphasis on family support and family unity may in fact buffer Mexican American youth from the effects of these stressors (Gil-Rivas et al., 2003; Guilamo Ramos et al., 2004). In fact, several studies suggest that while acculturative stress is positively related to depression, U.S. born teens of Mexican origin may be at higher risk for depression (Swanson et al., 1992; Harker, 2001) and alcohol use (Cavanagh, 2007; Boles, 1994; Alva, 1995; Zamboanga, 2003) when compared to first generation Mexican American youth born in Mexico. These findings suggest the possibility that as aspects of Mexican American family life change with increased acculturation, teens’ vulnerability to alcohol consumption and depression increases.

Significance of the Study

Mexican Americans are among the fastest growing immigrant group in the United States (Padilla, 1997; Escobar, Nervi, & Gara, 2000; Haskins et al., 2004). It is estimated that there are nearly 30 million Latinos of Mexican origin descent residing in the United States (American Community Survey 2007). Furthermore, 64% of persons who identify as Hispanic report being of Mexican origin (American Community Survey, 2006).

Due to increased immigration, Mexican American children make up the largest number of immigrant children in the United States (Landale & Opresa 1995; McCarthy, 1998) and comprise the largest segment of immigrant children in the American public school system.
Family Support and Parental Monitoring as Protective Factors

(Haskins et al, 2004). Moreover, the majority of immigrant children first migrate to the United States in grades 6 through 12 (Capps et al., 2005), during early adolescence and adolescence.

Despite the large number of Mexican American youth in the United States today and the high rates of depression and alcohol use prevalent in the United States (Helzer, 1998; Kessler et al., 2003), there are few studies that specifically focus on the occurrence and risk factors associated with depression and alcohol use among Mexican American adolescents. For the most part, the existing studies are cross-cultural and compare the prevalence and manifestation of depressive symptoms in Mexican Americans to those of other ethnic groups. In addition to this, comprehensive studies on Mexican American mental health tend to focus primarily on the emotional well-being of Mexican American adults (Escobar, Nervi, & Gara, 2000). While these studies are a step in the right direction by highlighting a growing state of concern about the emotional well-being of Mexican Americans in the U.S., they also reflect a gap in the literature and a need for additional research regarding the needs of Mexican American teens.

Several articles emphasize the importance of research on alcohol use by Mexican American youth indicating that this population is more likely to turn to alcohol during times of stress (Boles et al., 1994; Tschann, 2005) and is most at risk for alcohol abuse when compared to other Latino groups (Delva et al., 2005). Although few articles discuss the reasons for differences in rates of depression and alcohol use among Latino subgroups, distinctions between belief systems among different Latino groups may play a role. Some authors report that persons of Mexican descent may be more oriented toward fatalistic views. Fatalism, a belief in an external locus of control in which the outcomes of situations depend on external forces, has been found to correlate with increased psychological distress (Ross, Mirowsky, & Cockerham, 1983; Joiner et al., 2001).
Family Support and Parental Monitoring as Protective Factors

One significant factor that can contribute to a higher prevalence of depression and alcohol use in Mexican Americans is acculturative stress. Acculturative stress has been linked to an increased risk of depression and suicidal ideation (Hovey & King, 1996), which in turn can lead to alcohol use as a means of alleviating this distress. Additionally, recent immigration, which is associated with lower socioeconomic status and lower education, may create additional burdens that can strain family relationships making youth more likely to become depressed (Partida, 1996).

Another important factor that can contribute to differences in mental health outcomes among Latinos is immigration status. According to Padilla (1997), it is estimated that the majority of all undocumented immigrants in the United States are from Mexico. While not the focus of this paper, it is important to note that residing in the United States without proper documentation can place significant stress on Mexican American families that can contribute to emotional distress and possible use of alcohol as a means of coping. For Mexican American adolescents, such stressors can include poverty due to lack of access to public benefits and financial resources for family members, a heightened sense of fear of undocumented family members being deported, and social isolation from fear of being exposed as being undocumented.

Despite the many stressors that often accompany migration to a new country, findings indicate that Mexican American youth may in fact become more at risk for alcohol consumption with increased generational status (Gil, Wagner & Vega, 2000; Zamboanga, 2003). These conclusions reflect the complex nature of the acculturation process and suggest that there are other unique factors that may influence alcohol consumption by Mexican American adolescents. One possible factor is the blurring of traditional family values due to shifts in the roles of family
Family Support and Parental Monitoring as Protective Factors

members as a result of differences in levels of acculturation between parents and their children. For example, U.S. born children of immigrant parents are in the position of introducing a new culture to their parents via their exposure to American norms and rapid language acquisition. Similarly, English speaking Mexican American youth may be placed in the position of being the face and voice of their Spanish-speaking parents by translating for them and determining what is said and what is not said on behalf of the family. In a culture that emphasizes respect and obedience to parents, this type of reversal of traditional family roles and blurring of boundaries can undermine the role of the parents and contribute to additional stress (Partida, 1996).

The literature further indicates that there are aspects of Mexican culture that may protect Mexican American adolescents from depression despite the many challenges they face (Escobar, Nervi & Gara, 2000) and that family support and parental monitoring are critical factors in overall adolescent mental health development (Garrison et al., 1997). This suggests the possibility that the erosion of certain aspects of traditional Mexican American family values and the shifts of traditional family roles with the assimilation to U.S. culture has an immense impact on the mental health of Mexican American youth, possibly more so than other Latino groups.

Understanding protective factors that may reduce the risk for depression and alcohol use in adolescence is important for the social work profession. Aside from the first year of life, adolescence is the time in the human lifecycle when individuals experience the most biopsychosocial changes. In addition to this, the developmental tasks associated with adolescence often yield enormous growth and maturation but may also put the adolescent at risk. These potentialities make adolescence an important time for social scientific inquiry.

The research in this study has many implications for the social work profession. As the primary providers of mental health services in the United States, social workers provide services
Family Support and Parental Monitoring as Protective Factors

for Mexican immigrant adolescents in a variety of settings and have a large role to play in the development of research and practice models to assist Mexican American youth. It is important that social workers conduct studies that contribute to the limited body of knowledge regarding immigrant and Latino mental health. Studying the prevalence of depression and alcohol use in this population is a critical step in this direction.

The research in this dissertation can guide social workers in improving quality of life for Mexican American youth by informing policy decisions and advocating for this population. The information derived from this research can also enhance social work education by providing future generations of social work students with knowledge that will prove useful when discussing mental health in a global context. Furthermore, in determining best practices for treatment, it is important that social workers and social work students develop an understanding of both the risk factors that contribute to alcohol use and depression in this population as well as the factors that can protect against these problems.

Finally, gaining an understanding of protective factors in Mexican origin families aids in the provision of culturally competent treatment and potentially alleviates the pathologizing of behaviors that may differ from American culture. Moreover, understanding protective factors that mitigate risky behaviors adds to the current knowledge base and can greatly enhance the development of preventive programs for youth of all ethnic backgrounds.
CHAPTER II

LITERATURE REVIEW

In this review, I will discuss the prevalence of depression and alcohol use among Mexican American adolescents in the United States. I will provide a definition of the terms that I used in this study in order to differentiate between depression and alcohol use and related diagnoses and concepts. This review will also incorporate literature on risk and protective factors such as socioeconomic status, generational status, age, and gender, and will consider the important role of family support and parental monitoring as potential safeguards against depression and alcohol use among Mexican American adolescents.

Definitions of Depression and Alcohol Use

Depression

Depression is one of the most frequently diagnosed mental health disorders (Birmaher et al., 1996) and is an important health concern in the United States. If left untreated, the symptoms of depression can be debilitating and in some cases can lead to suicide. According to the American Academy of Child and Adolescent Psychiatry, suicide is the third leading cause of death for youth aged 15-to-24-year-olds, and the sixth leading cause of death for children aged 5-to-14 (American Academy of Child and Adolescent Psychiatry, 2008).

The term depression is often used to refer to a Major Depressive Episode, which according to the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2000) is comprised of a cluster of symptoms present for the same two-week period and which represent a change in the person’s functioning. These symptoms include: depressed mood most of the day, decreased pleasure in activities one used to enjoy, sleep and eating disturbances, lethargic movement, fatigue, feelings of worthlessness or guilt, difficulties
Family Support and Parental Monitoring as Protective Factors

concentrating or making decisions, and morbid thoughts of death or suicide (American Psychiatric Association, 2000).

In working with Mexican American adolescents, clinicians often encounter children who may be experiencing depressive symptoms and stress as a response to the emotional process of migration. Acculturative stress, which is a term that is often used to refer to the challenges new immigrants face in adapting to a new country, often includes feelings of sadness as well as feelings of guilt related to leaving loved ones behind (Berry et al., 1987). Symptoms of acculturative stress such as moodiness, feelings of isolation, difficulties concentrating, and insomnia may be part of the new immigrant experience and are also symptoms of depression (American Psychiatric Association, 2000). As a result it may be difficult to distinguish between depression, acculturative stress, and DSMIV diagnoses such as dysthymia and adjustment disorders. These challenges in assessment can result in the unnecessary pathologizing of an otherwise normative response to the migration experience. Likewise, in looking at studies on depressive symptoms in immigrant children, it is important to note that definitions of depression differ across studies and as a result, it may be difficult to discern whether the study indeed captured depression that may be organic, biologically predisposed, or due to consistent exposure to stressors versus depression resulting from acculturative stress and migration as these symptoms may overlap.

While it is important to distinguish between depression and similar concepts such as acculturative stress associated with migration, it is also important, given the limited amount of literature on depression in Mexican American adolescents, to incorporate data on depressive symptoms more generally in this population. Additionally, adolescence is a time period of numerous psychological, social, and biological changes. These changes may result in bouts of
Family Support and Parental Monitoring as Protective Factors

depression and mood swings that are a normative response to the rapid development that occurs during this stage of the life course.

It is important to note that this study focused on the number of depressive symptoms present and not on obtaining a diagnosis of depression. Nonetheless, given the importance of gaining a comprehensive understanding of depression and its relationship to alcohol, parental monitoring, and family support in Mexican American youth, the following literature review incorporates articles that explore the presence of depressive symptoms including as well as the DSM-IV diagnosis of mood disorders such as Major Depressive Disorder and Dysthymia.

**Alcohol Use**

Overall, alcohol and substance abuse by adolescents in the United States continues to be a major public health concern (Boles et al., 1994; Cavanagh, 2007). For many adolescents, alcohol consumption places them at risk for alcohol related deaths by suicide, accident, and homicide as well as later development of substance abuse disorders (Kinney, 2000). As a result of the dangerous risks of any use of alcohol among adolescents, the review presented in this study incorporates an inclusive use of the term “alcohol use” in order to incorporate studies on all levels of alcohol use by Mexican American adolescents.

**Depression in Mexican American Adolescents**

Depression is a growing problem among adolescents. Recent studies on depression indicate that approximately 8% of the adolescent population suffered from a major depressive episode in the prior year (Substance Abuse and Mental Health Services Administration, 2008). Additionally it is estimated that over 2.2 million teens between the ages of 12 and 17 experience a major depressive episode in any given year (Substance Abuse and Mental Health Services Administration, 2005). Research on the prevalence of depression in the adolescent population at
the time the data for this dissertation was gathered found depression rates to range from 3.3% to 6.2% (Garrison et al., 1997; Lewinsohn et al., 1993, U.S. Department of Health and Human Services, 1999; U.S. Department of Health and Human Services, 2001). As the most recent results indicate, the number of youth who report experiencing depression appears to be rising (Substance Abuse and Mental Health Services Administration, 2008).

Depression is a mental health disorder with symptoms that can severely impact one’s overall quality of life. For depressed teens, the effects of these symptoms are compounded with the difficult tasks of adolescence. In adolescence, depression can impact self-esteem, peer relationships, school performance, and place teens at risk for suicide (Hovey & King, 1996; Rumbaut, 1994, Shaffer & Craft, 1999; Shaffer et al., 1996; Lewinsohn et al., 1994; Roberts & Chen, 1995). Adolescent depression is further complicated by the tasks of separation-individuation, the emotional and biological changes that this life cycle entails, and the interaction between the adolescents and their family.

For Mexican American adolescents struggling with depression, adolescent tasks such as separating from one’s family, identifying with peers, and developing a sense of self are particularly complex. In addition to the developmental tasks faced by their American peers, Mexican American teens have the added task of navigating two different cultures with differing norms and values. Foreign-born Mexican teens face additional obstacles such as acculturative stress, mastering a new language, and attempting to assimilate into American culture while maintaining the cultural ties to their home land (Hovey & King, 1996). Managing these added stressors can place Mexican American youth at increased risk for depression.

*Depression in Mexican American Youth Compared to Other Ethnicities*
Family Support and Parental Monitoring as Protective Factors

Several school-based studies using self-report measures have found higher rates of depression in Mexican American students compared to Anglo students (Roberts, Roberts & Chen, 1997; Roberts & Chen, 1995; Joiner et al., 2001). Mexican American children also reported higher rates of depression when compared to other minority ethnic groups including African American, Native Americans, and Chinese Americans (Roberts, Roberts & Chen, 1997). In addition to this, Mexican American children are found to be at increased risk for suicide when compared with their Anglo peers (Roberts & Chen, 1995).

Studies using secondary analyses from nationally representative samples found that Mexican American children across the United States are 1.5 times more likely to report depression than Anglos (Roberts & Sobhan, 1992) and are also more likely to meet the criteria for Major Depressive Disorder and Dysthymic disorder than Euro-Americans (Riolo et al., 2005).

Studies on age of onset for depression indicate that Mexican Americans have significantly earlier onset of Major Depressive Disorder compared to African Americans (Riolo et al., 2005). Furthermore, there is evidence that Mexican Americans may develop depression prior to adolescence. In a study on fourth and fifth grade Mexican American students, 31% of the participants scored in the depressed range in a self report depression scale (Cowell et al., 2005). This body of research highlights the importance of understanding the prevalence of depression in Mexican American children and demonstrates mounting evidence that Mexican American adolescents are at a higher risk for depression compared to other ethnic groups.

Although a number of studies report high rates of depression in Mexican American youth, one study of Mexican American youth in the United States reported no differences in rates of depression in Mexican American adolescents compared to other ethnic groups (Roberts,
Family Support and Parental Monitoring as Protective Factors

Roberts & Xing, 2006). This study differed from the other studies in several ways. The researchers in this study noted that the sample design may have been problematic due to this being a secondary analysis sampled from a large HMO study and not an area probability sample. In addition to this, the overall response rate in this study was 66% which indicated a high rate of attrition. The study did not indicate how this high rate of attrition may have impacted the results.

**Socioeconomic Status**

Several articles have noted the relationship between poverty and socioeconomic stressors that may contribute to depression. In a large study of 8449 participants of various ethnicities, Riolo et al., (2005) found that persons living in poverty were 1.5 times more likely to experience a major depressive disorder. A second study that looked at a sample of students residing in one of the poorest areas in the United States found high rates of suicidal ideation, depression and substance abuse among Mexican American youth (Swanson, 1995). One study that explored well-being among Latino youth of varying generational status, found that the lower socioeconomic status of newly arrived immigrants accounted for lower levels of positive well-being in this sample (Harker, 2001). Another study reported that Mexican Americans were 1.5 times more likely to report depression than Anglos even when socioeconomic status was controlled for (Roberts & Sobhan 1992).

Other studies that considered the relationship between depression and socioeconomic status in Mexican Americans found no statistical differences in rates of depression among youth with lower socioeconomic status (Hovey & King, 1996; Roberts & Chen, 1995). In a study that considered ethnic differences in major depression, Roberts, Roberts & Chen (1997) found that there was no significant relationship between ethnicity and socioeconomic status with regard to
Family Support and Parental Monitoring as Protective Factors

depression. Furthermore, lower socioeconomic status did not appear to increase the risk for other psychiatric disorders (Roberts, Roberts & Xing, 2006).

While no studies were found that specifically looked at rates of depression between Mexican American youth of different immigrant statuses, this is an important area for future research. According to The Board on Children and Families (1995), approximately 15% of immigrants residing in the United States are undocumented. Although accurate statistics on the number of undocumented immigrants residing in the United States are nearly impossible to obtain, it is estimated that about 62% of all undocumented immigrants in the United States are from Mexico (Padilla, 1997). Under guidelines of the Personal Work and Responsibility Act of 1996, undocumented immigrants of all ages are ineligible for public benefits such as food stamps or monetary support (Padilla, 1997). Stressors associated with being an undocumented immigrant often include increased poverty due to limited access to employment, substandard housing conditions, and ineligibility for medical insurance to pay for medical or mental health treatment. These factors combined with the challenges of assimilation may place undocumented immigrants at increased risk for depression. Additionally, limited access to adequate mental health care makes it difficult to accurately identify and treat mental health problems such as depression in this population.

The current literature on mental health among Latinos indicates that despite sharing a common language and cultural similarities, there are distinct differences in the prevalence and manifestation of depressive symptoms within this group. A number of studies revealed that compared to Euro-Americans, Latino adolescents are at risk for depression (U.S. Department of Health and Human Services, 2001; Roberts & Chen, 1995; Roberts et al., 1997) and that among Latino subgroups, Mexican American children are the most likely to indicate high levels of
Family Support and Parental Monitoring as Protective Factors

distress (U.S. Department of Health and Human Services, 2001). The literature also maintains
that within the Mexican community, there are important differences contributing to rates of
depression in this population and that variables such as gender and cultural orientation may
account for some of these differences (Hernandez, 2006; Harris, 2000).

Depression and Gender

The literature indicates that there are major gender differences in depression rates.
Relative to males, females demonstrate higher rates of depression across ethnic groups (Hovey &
King, 1996; Roberts, Roberts & Chen, 1997; Swanson et al., 1992; Lewinsohn et al., 1994).
Mexican American females and other Latinas reported significantly higher symptoms of
depression compared to females of other ethnicities (Benjet, 2001; Roberts & Sobhan, 1992;
Joiner et al., 1991; Weinberg & Emslie, 1987). Additionally, Mexican American girls were
found to be at increased risk for suicidal ideation compared to Mexican American boys
(Swanson et al., 1992; Hovey & King, 1996; Weinberg & Emslie, 1987).

Cognitive and biological explanations for the disparity in prevalence of depression across
genders were explored in the literature. One study (Joiner et al., 1991) looked at the relationship
between cognitive thinking styles and depressive symptoms across ethnic groups and found that
Mexican American females who displayed a more fatalistic way of thinking also reported more
depressive symptoms than girls of other ethnicities.

Another study examined the psychological impact of puberty on Mexican American
adolescents and found that females were adversely impacted by puberty and suffered an increase
in negative body image, depressive symptoms, and externalizing problems post menarche
(Benjet & Hernandez-Guzman, 2001). Rierdan et al., (1991, 1993) reported similar findings
regarding the negative impact of menarche on mental health in a sample of female students.
These researchers also found that the earlier the onset of menarche, the higher the likelihood of depression. Possible explanations for increased distress during this time period included the rapid physical changes and visibility of female development with the onset of menarche, the tendency for females to enter puberty at least two years earlier than boys, and the gendered socialization that often accompanies puberty (Benjet & Hernandez-Guzman, 2001). Additionally, Benjet & Hernandez-Guzman (2001) identified several protective factors against increased distress in females with the onset of puberty including positive attitudes toward menstruation, perceived positive affect from both parents, and less parental control.

Environmental factors serve an important function in mental health outcomes between genders. Acculturative stress, low self-esteem, and family dysfunction were found to be significantly correlated with depression in a sample of Mexican American junior high school girls (Hernandez, 2006). Additionally, Almeida and Kessler (1998) found that gender differences in levels of daily stress may be one possible explanation for gender differences in rates of depression and anxiety in females, as women reported significantly more stressful days than their male counterparts. These findings were supported by Peterson et al., (1991) who found that girls were at risk for developing depressive symptoms because they experienced more challenges in early adolescence than boys.

Orientation to U.S. Culture and Depression

Evidence suggests that differences between depression rates in Mexican Americans may be in part due to the effects of generational status and that first generation Mexican origin youth may be at increased risk for psychological distress due to the impact of acculturative stress (Padilla, 1997; Hovey & King, 1996; McCarthy, 1998). Several studies have found acculturative stress to be a predictor of depression in Mexican American youth (Hovey & King, 1996; Romero
Family Support and Parental Monitoring as Protective Factors

& Roberts 2003). Moreover, it has been found that acculturative stress is higher among first
generation immigrant children compared to their U.S. born peers (Mena et al., 1987; Romero &

The emotional adjustment of the migration and acculturation phase can be emotionally
taxing on first generation immigrant children placing them at risk for mental health disorders.
Stressors associated with the process of acculturation place children at risk for several depression
related symptoms such as loneliness (Roberts & Chen, 1995), low self esteem, and family
dysfunction (Hernandez, 2006; McCarthy, 1998). Difficulties associated with language
acquisition can place Mexican American middle school children at risk for school problems and
stress from needing to learn better English (Romero & Roberts, 2003; Morse, 2005).
Furthermore, students with limited or no use of English were found at increased risk for both
depression and suicidal ideation (Roberts & Chen, 1995).

While the stressors associated with acculturation and the difficulties of straddling two
different cultures may place Mexican immigrants at risk for depression and other mental health
disorders, several studies have indicated that aspects of Mexican culture may in fact protect
youth of Mexican origin from depression. In an influential study comparing Mexican American
youth residing along the U.S./Texas border to Mexican teens residing in Mexico, Swanson et al.,
(1992) found higher rates of depression, suicidal ideation, and drug use in U.S. resident Mexican
American youth, indicating that this population was at considerably high risk compared to
Mexican youth residing in Mexico (Swanson et al., 1992). A number of articles pointed to
immigrant status as a protective factor and indicated that foreign born children are at decreased
risk of experiencing mental and physical health problems (Escobar, et al., 2000; Harker, 2001;
Family Support and Parental Monitoring as Protective Factors

Fuligni, 1998) as well as engaging in risky behaviors, and missing school for emotional and health problems compared to second generation immigrants (Harris, 2000).

Despite some evidence of the impact of acculturation related variables to depression, few studies were located that specifically compared prevalence rates of depression between Mexican Americans of varying generations. In a study utilizing the ADD Health data, (Harker, 2001) found a positive correlation between increased generational status and depression for Mexican American students across the United States. This finding is important because it suggests that there are factors related to length of family residency in the United States that may place Mexican American youth at risk for depression. Consequently, there may be aspects of traditional Mexican culture that prevent depression. In order to continue investigation of this topic, this study included a comparison of prevalence of depression between U.S. born and Mexican-born adolescents.

A review of several studies on Mexican immigrant mental health (Escobar et al., 2000) found an inverse relationship between length of time residing in the United States and positive health outcomes for Mexican immigrant youth, suggesting that shorter residency in the United States may be related to better mental health for this population. Moreover, findings from a secondary analysis of a nationally representative data set on adolescents indicated that the longer the time since migration to the United States, the worse the physical health outcomes and the higher the likelihood of partaking in health risk behaviors (Harris, 2000). Similar findings were reported by Vega et al., 1998 who discovered that despite low education and income levels, Mexican Americans had lower rates of lifetime psychiatric disorders compared with rates reported for the U.S. population.
These findings are important for several reasons. First, they suggest that as Mexicans become more accustomed to U.S. values and norms they may also become more vulnerable to developing mental health problems and engaging in risky behaviors such as alcohol use. Second, they suggest that there are cultural norms in the Mexican community that may protect children from negative mental health outcomes as several of the studies discussed thus far have underscored the role of family involvement as a buffer against acculturative stress and differences in the mental health outcomes of Mexican American youth (Hovey & King, 1996; Escobar et al., 2000; Harris, 2000; Harker, 2001). This topic was further explored in a separate section of this dissertation. Finally, these findings highlight the importance of further research in order to gain an understanding of factors that are predictive of depression in this population as well as those that may prevent depression.

Alcohol Use in Mexican American Adolescents

For many teens, adolescence is a time of identity formation and exploration. As teens separate from their families and interact more with peers, they may engage in risky behavior and experimentation that can adversely affect their physical and emotional health. Experimentation with alcohol and other substances may be a common part of this process. In addition to this, alcohol continues to be the drug of choice for some adolescents (Guo et al., 2001), including Latino youth (Boles et al., 1994). Experimentation with alcohol and drugs at this developmental stage can have long term effects on an adolescent’s quality of life and the propensity for alcohol abuse and dependence in adulthood (Guo et al., 2001; Hill et al., 2000; Maggs et al., 2008). Specifically, use of alcohol places teens at risk for school problems (Arellano et al., 1998), conflicts with peers and family members, and increased mortality via accidents (Felix-Ortiz et al., 2001; Kinney, 2000). In the Mexican American community, alcohol use places teens at-risk
Family Support and Parental Monitoring as Protective Factors

for experiencing violence (Tschann et al., 2005) and excessive absences from school (Felix-Ortiz et al., 2001).

According to the National Survey on Drug Use and Health (Substance Abuse and Mental Health Services Administration, 2004), 10.7 million adolescents aged 12 to 20 reported drinking alcohol in the month preceding the survey. These trends remained consistent in follow up surveys conducted from 2004 through 2007. More recent studies revealed that 15% of Hispanic youth aged 12 to 17 used alcohol in the previous month and that alcohol use appears to increase steadily with age, with 35% of young adults reporting alcohol use by age 20 (Substance Abuse and Mental Health Services Administration, 2008).

Despite epidemic levels of alcohol consumption by adolescents in general, the body of literature on alcohol use by Mexican American youth is sparse. The majority of articles that examine alcohol use in the Mexican American population focused on drinking patterns among Mexican American adult males or in the Latino population as a whole. Consequently, many of the studies located have emphasized the importance of understanding the differences within Hispanic subgroups and indicated that there is a need to gain a better understanding of substance abuse correlates particularly among Mexican Americans and other rapidly growing Latino populations in the United States. Due to these gaps in certain areas of the literature and an abundance of information in other areas, this section of the review focuses on those studies that are most relevant to the variables explored in this study.

Alcohol Use in Mexican American Youth Compared to Other Ethnicities

While few studies were located that exclusively looked at the prevalence rates of alcohol use by Mexican American adolescents compared to other ethnic groups, empirical evidence has demonstrated problematic rates of alcohol use by Latino adolescents. Ethnicity has been found to
be the highest predictor of adolescent drinking rates as well as a predictor of adolescent drinking patterns (Stewart & Power, 2003). Latino youth have the second highest rate of alcohol use, followed by African American youth (Roberts et al.,1995; Stewart & Power, 2003; Bachman et al.,1991). Moreover, among Latino subgroups, Mexican American youth are more likely to consume alcohol compared to Puerto Ricans, Cuban and youth of other Latin American origin (Delva et al., 2005).

Levels of alcohol use by Mexican American students surpass those of non-Hispanic whites by the 12th grade (Swaim et al., 2004). In a large scale study, Mexican American seventh grade students reported more frequent use of alcohol, cigarettes, and marijuana compared to non-Hispanic Whites (Marsiglia et al., 2004).

Morales (1984) and Grunbaum et al., (1996) both studied Mexican American and non-Hispanic White students in grades 9-12 and found that in their samples, age of initiation and patterns of alcohol and substance use were similar for both ethnic groups. Similar studies that considered differences in drinking patterns between ethnic groups found that Mexican American students were more likely to drink to alleviate pressure, compared to European students who reported to drinking for fun (Boles et al., 1994). Overall Latinos were more likely to consume alcohol to alleviate stress, improve their mood (Brannock et al., 1990; Stewart & Power, 2003; Pumariega et al., 1992), and to forget problems (Neff et al., 1987) compared to other ethnic groups. Mexican American adolescents in particular may turn to alcohol as a means of managing emotional distress (Tschann et al., 2005).

One study consisting of a large sample of students residing in the southwestern United States found that while Mexican American students drank less than non-Hispanic white students, they were likely to binge drink more frequently (Swaim et al., 2004). Another study, found that
Family Support and Parental Monitoring as Protective Factors

Mexican-American students were much more likely to have engaged in heavy drinking than Puerto Rican or Latin American students (Windle, 1991). It is possible that students seeking to alleviate emotional distress may also be prone to engage in binge drinking, although this hypothesis requires further exploration.

Alcohol Use and Depression

The association between alcohol use and depression has long been established. Several articles have identified a high rate of alcohol use by persons with Major Depressive Disorder (Currie et al., 2005; Hasin et al., 2005) and other psychiatric diagnosis (Helzer et al., 1988). Among Mexican American adults, heavy drinking is associated with both depression and higher stress levels (Lipton, 1997). In Latino adolescents as well as for other minority groups, psychological distress has been determined to be a risk factor predisposing adolescents toward alcohol and drug use (Alva, 1995; Lewinsohn et al., 1995).

Alcohol use and depression are interconnected in several ways. In order to manage the often painful symptoms associated with depression, many adolescents may turn to alcohol or drugs as a means of self-medicating (Khantzian, 1990, 2003). Studies on Latino adolescents have found a relationship between alcohol use and depression indicating that students who abuse alcohol are also more likely to experience depression than those who do not (Desimone et al., 1994; Workman et al., 1989; Vega et al., 1993; Alva, 1995).

Extensive research has documented a significant relationship between emotional distress and most types of drug and alcohol use in Mexican American and other Latino youth (Pumariega et al., 1992; Vega et al., 1993; Zapata & Katims, 1994; Swanson et al., 1992; Felix-Ortiz et al., 1994). These findings indicate that Mexican American youth, who appear to suffer from depression at alarming rates, are also at increased risk of developing an alcohol problem.
Although persons suffering from depression may use alcohol to cope with their symptoms (Khantzian, 2003), depression can also be caused by alcohol use due to the biochemical relationship between alcohol and depression. As a result of alcohol’s depressant properties, teens may become more depressed once they cease drinking or in response to alcohol’s depressant effect on the Central Nervous System (Kinney, 2000).

Despite the literature indicating higher levels of depression among Mexican youth and the strong relationship between depression and alcohol use, this relationship remains understudied in this population. Two school based studies that investigated these correlates indicated a positive relationship between alcohol use and depression in this population (Swanson et al., 1992; Desimone, 1996) and called for further research and intervention for Mexican American youth.

Socioeconomic Status

Few studies were located that considered the role of socioeconomic status in teenage drinking among Mexicans Americans, indicating a need to acquire further information on this topic. Boles et al., (1994) examined alcohol and drug use rates among Mexican-American students by comparing Mexican-American adolescents born in the United States to Mexican-American students born in Mexico and to Caucasian students attending the same schools. The study looked at over 3,400 9th and 11th graders and determined that there was no relationship between socioeconomic status and alcohol use in this population. In a second study by Stewart and Power (2003), the independent effects of social class were insignificant; however, socioeconomic status was closely related to use of alcohol as a means of alleviating tension for middle class youth.
A large scale study of Mexican American students receiving free lunch found that for these students, the relationship between low socioeconomic status and alcohol use was mitigated by a strong ethnic affiliation and pride in their culture (Marsiglia et al., 2004). This finding suggests that strong ties to ones culture may serve as a buffer against substance use and supports the importance of identifying protective factors in looking at alcohol use in Mexican American teens.

Pumariega et al., (1992) and Morales (1994) both found that living in poverty is a significant risk factor for Latino alcohol use. This may occur for several reasons. First, youth living in poverty may experience increased stress, which in turn may make them more likely to turn to alcohol as a means of coping. Second, youth residing in low income neighborhoods may have more exposure and greater access to drugs and alcohol in their neighborhoods.

**Alcohol Use and Gender**

Stewart and Power (2003) examined the role of gender in drinking patterns among European, Mexican American, and African American students and found that across all ethnic groups, males consumed more alcohol than their female counterparts. Males were also more likely to experience dependency and to neglect responsibilities as a result of alcohol consumption. While similar findings were found in other school based studies (Boles et al., 1994; Arellano et al., 1998), a number of other studies have shown that in fact Mexican American females have a higher propensity toward alcohol use (Swaim et al., 2004; Black & Markides, 1993; Desimone, 1997). However, one nationally representative study targeting adolescents aged 12-17 revealed no gender differences in alcohol use patterns across several ethnic groups (Nielsen & Ford, 2001).
Acculturation factors, which are further discussed in the following section, play a significant role in the inconsistent findings in the literature pertaining to gender and alcohol use. Several articles have documented that acculturation appears to have a considerable effect on gender differences and alcohol consumption. These articles suggest that females may become more vulnerable to alcohol use compared to males as they assimilate to U.S. culture. Acculturation has been related to significantly higher alcohol use (Tonin et al., 2008; Vega & Gil, 1999) and binge drinking among Mexican American female adolescents (Lovato et al., 1994). Similar results were found in a sample of female Mexican American college students (Raffaelli et al., 2007). One possible explanation for these acculturation related changes in female drinking is that American cultural norms tend to be more tolerant of female drinking than traditional Mexican norms.

Another factor in gender differences of alcohol use among Mexican Americans is school grade level. A study of Mexican American students in grades 7 through 12 found that younger female students were more likely to report drinking than males, although among older students, fewer girls reported recent drunkenness or binge drinking (Swaim et al., 2004). These findings suggest that Mexican American females may experiment with alcohol at a younger age compared to their male counterparts.

Orientation to U.S. Culture and Alcohol Use

Scholars have demonstrated that aspects of orientation to U.S. culture, including generational status and the process of acculturation, appear to influence alcohol use in Mexican Americans. While this study examined differences in alcohol use and depression by generational status, it did not specifically measure acculturation in this population. Nonetheless, any discussion of factors that influence alcohol use in minority or immigrant populations would be
Family Support and Parental Monitoring as Protective Factors

incomplete without consideration of the role of acculturation. This section provides a concise review of the most relevant literature regarding acculturation as it pertains to alcohol use in Mexican American youth.

Several studies have documented that in terms of engaging in risk-taking behaviors, there appears to be a protective quality of being foreign born (Harris, 2000; Gil et al., 2000). This is because as teens become more acculturated to the United States, they also tend to engage in more risk-taking behaviors (Harris, 2000; Alva, 1995; Pumariega et al., 1992; De la Rosa et al., 2000).

Researchers that looked at place of birth determined that overall, U.S. born Mexican adolescents are more vulnerable to alcohol abuse than foreign-born Mexican Americans (Cavanagh, 2007; Boles, 1994; Alva, 1995; Zamboanga, 2003). Longitudinal studies of Latino youth revealed that foreign born Mexicans remained more likely to abstain from alcohol use than those born in America (Gil et al., 2000) and that alcohol use increased with each successive generation (Cavanagh, 2007). Research that compared drinking behaviors determined that first generation Mexican American students were less likely to binge drink than second generation students (Zamboanga, 2003).

Some explanations for these differences in rates of alcohol use between first and second generation Mexican youth included more availability of alcohol in the United States (Boles et al., 1994), limited intervention efforts targeting second generation students and beyond (Boles et al., 1994; Harris, 2000), possible differences in willingness to disclose substance use by Mexican natives (Boles et al., 1994), and a deterioration of traditional family values with increased acculturation (Gil et al., 2000). Only one article was located that indicated more use of alcohol by Mexican born students than U.S. born Mexicans (Felix-Ortiz et al., 2001). These findings were explained by a lack of educational programs targeting substance abuse in Mexican schools.
Family Support and Parental Monitoring as Protective Factors

Some studies have found that youth of Mexican descent residing in America use alcohol and other drugs at higher rates than those residing on the opposite side of the Mexican border (Swanson et al., 1992; Pumariega et al., 1992). This relationship between U.S. residency and alcohol use was supported in bi-national studies by Boles et al., (1994) and Swanson et al., (1992). Length of time living in the United States was also determined to be positively correlated to alcohol use and changes in drinking patterns for Mexican Americans (Gil et al., 2000; Gilbert & Cervantes, 1986).

One study using the ADD Health data set found that differences in drinking patterns such as binge drinking, pertained only to Mexican American youth who had used alcohol prior to migration and that Mexican youth with a history of abstinence were unaffected (Guilamo-Ramos et al., 2004). This study suggested that Mexican teens that may have previously turned to alcohol as a means of relieving stress were more likely to do so as they assimilated to U.S. culture.

Aspects of assimilation, such as having more Caucasian friends (Cavanagh, 2007) and use of English were related to increased drinking in this population (Epstein et al., 2000; Zapata & Katims, 1994; Gil et al., 2000; Guilamo-Ramos et al., 2004; Marsiglia et al., 2004).

The effects of the strains of the acculturation process may lead to the development of problem behaviors particularly when the stress associated with the acculturative process is not mediated by support. Despite being an important aspect of the acculturation process, higher English proficiency was related to acculturation problems such as increased perceived discrimination, which in turn may result in increased alcohol use as a means of coping (Guilamo-Ramos et al., 2004).

Studies of alcohol use by Mexican Americans have identified the role of acculturative stress as playing a significant function in both rates of consumption and drinking patterns. These
Family Support and Parental Monitoring as Protective Factors

studies have found that acculturative stress contributes to alcohol use in Latino youth due to the impact of acculturation on family values, changes in attitudes, and decreased familistic behaviors between family members (Gil et al., 2000). Immigrant adolescents may experience family conflicts as they begin to identify with more American values which may vary from their parent’s values (McCarthy, 1998). Additionally, Mexican immigrant teens may be susceptible to internal conflicts as they enter adolescence and attempt to integrate both value systems into their identity. In addition to experiencing conflicts related to adolescent development, acculturating Mexican youth also face environmental challenges such as difficulties with language acquisition and discrimination as they seek to adapt to American society. Research suggests that in terms of identity formation, there is a positive relationship between degree of ethnic identification and self-esteem for Latino adolescents particularly those who live in areas where their ethnic group composes the majority of the Latino population (Umaña-Taylor et al., 2002).

In summary, this body of research demonstrates that U.S. born Mexican Americans are at high risk for alcohol problems. These findings underscore the need to acquire further understanding of generational differences in alcohol abuse in order to inform appropriate intervention methods geared toward this vulnerable population. In turn, traditional Mexican culture appears to offer immigrant youth protective barriers against alcohol and substance abuse. Foreign born Mexican youth are less likely to engage in risk taking behaviors such as alcohol use and have also been shown to have better health outcomes. A number of these studies point to the role of family functioning as a key component in protecting these teens. The role of family support and parental monitoring as protective factors will be further explored in the following section.
Family Support and Parental Monitoring as Protective Factors

Family Support and Parental Monitoring as a Protective Factor for Mexican American Adolescents

This review thus far has focused on the prevalence and risk factors associated with depression and alcohol use among Mexican American youth. However, it is also important to understand protective factors that prevent risky behaviors in adolescence, and positive family interactions are one factor that can enhance mental health outcomes (Guo et al., 2001; Baer, 1999; Neff et al., 1993; Jacobson, 2000). Accordingly, this portion of this review will center on family support and parental monitoring in Mexican American culture and its possible role in preventing depression and alcohol use by Mexican American teens.

Family Support and Parental Monitoring in Mexican American Families

Adolescence may be a particularly confusing time for both parents and children in Mexican American families. From a developmental perspective, adolescence has been associated with multiple psychological and biological changes. Western views of pertinent adolescent developmental tasks such as separation-individuation (Bowlby, 1969; Blos, 1967) and identity formation (Erikson, 1959) may not always align with Mexican American values. For example, while American culture may encourage autonomy and expect children to move further away from the family and toward their peers as they seek to define their identities during this time period, Mexican American familistic values encourage interdependence over independence and expect adolescents to maintain close family ties. Several researchers caution against a universal definition of adolescent development indicating that adolescent tasks and mental health must be considered in the context of each child’s culture and ethnic affiliation (Baer et al., 2004; Baer et al., 1992, Choi, 2002; Greenfield et al., 2003).
Family Support and Parental Monitoring as Protective Factors

The Latino culture is characterized by strong family ties, familistic values and high levels of family cohesion (Halgunseth, 2006; Baer & Schmitz, 2007) and parental warmth (Gil-Rivas et al., 2003; Guilamo-Ramos et al., 2007). While there may be differences in the expression and dimensions of these traits between subcultures, the importance of family solidarity appears to be a unifying theme for all Latinos.

Familismo, which is described as one of the most salient values of Mexican American (Rumbaut, 2000) and other Latino cultures, is characterized by a strong sense of regard for the family, positive family interactions, unity and interdependence (Romero et al., 2004; Coohey, 2001; Parke et al., 2004). Aspects of familismo in Latino families include feelings of obligation toward the family and the expectation of support by family members (Rumbaut, 2000; Sabogal et al., 1987; Fuligni, 1998).

This section of this dissertation will emphasize two elements of familismo namely family support and parental monitoring, and will consider their potential role as buffers for depression and alcohol use in Mexican American youth. Family support is an integral component of familismo and has been used as an indicator of familismo in several studies (Coohey, 2001; Guilamos-Ramos et al., 2007). For the purpose of this literature review, family support will encompass feeling supported by parents as well as other essential aspects of this complex construct including parental warmth and family cohesion which are variables that influence feeling supported. Additionally, the literature has found parental monitoring, a characteristic frequently associated with authoritative parenting, to be an important aspect of familismo (Guilamo-Ramos et al., 2007) and has established a positive correlation between familismo and increased parental monitoring (Romero & Ruiz, 2003). For the purpose of this review, parental
Family Support and Parental Monitoring as Protective Factors

monitoring will encompass supervision by parents as well as parental control over adolescent’s decision making.

Family support and high regard for one’s ethnic background is linked to numerous positive outcomes for Mexican American youth including increased psychological well-being (Kiang et al., 2006), academic success (Cornelius-White et al., 2004), and life satisfaction (Edwards & Lopez, 2006). Furthermore, family support including support by extended kin has been shown to reduce the risk for child maltreatment (Coohey, 2001) and to mitigate the negative effects of low socioeconomic status in Latino families (Parke et al., 2004).

Empirical research indicates that while they are separate concepts, parental support is positively associated with parenting practices such as increased parental monitoring and supervision (Romero & Ruiz, 2007; Halgunseth et al., 2006). Research on the buffer effects of parenting practices in Mexican American families indicate that cultural values such as familismo and respect strengthen parental control in Latino families (Romero et al., 2007; Halgunseth et al., 2006) and may prevent adolescents from engaging in deviant behaviors (Baer, 1999).

In a review of articles on parental control in Latino families, Halgunseth et al., (2006) contend that the use of parental control by Latino parents reinforces cultural underpinnings of familismo, respect, and education and that in general Latino parents tend to monitor their children more than other cultures. These findings are important because parental control appears to be a significant deterrent of adolescent risk-taking behaviors and an influential factor in psychological well-being (Harris, 2000).

Family Support, Parental Monitoring, and Depression

*Family Support*
Aspects of Latino family life such as family support, parental monitoring, and family cohesion have been linked to enhanced mental health for Mexican American youth. The literature on Mexican American high school students reveals that positive interactions between parent and child mediate risk factors for internalizing disorders such as depression (Edward & Lopez, 2006; Driscoll et al., 2008). Parental warmth and acceptance is associated with decreased symptoms of depression for Mexican American teens (Gil-Rivas et al., 2003). Conversely, parent-child conflicts tended to be predictive of depression (Smokowski & Bacallao, 2007; Rumbaut, 1994), particularly for adolescents in family-oriented cultures such as Mexican Americans (Gil-Rivas et al., 2003; Harker, 2001).

Family support has been noted to reduce depression-related symptoms in Mexican American youth in several ways. Smokowski et al., (2007) and Kiang et al., (2006) revealed that ethnic regard and familial support improved daily psychological functioning by protecting teens from stressful life situations, including experiences of perceived discrimination and daily stress related to difficulties at school. In a study of Mexican immigrant youth, Gil et al., (1994) reported that positive family interactions counteracted adverse effects of acculturation which previous research linked to depression and suicidal ideation (Hovey & King, 1996). Likewise, in examining results from a nationally representative study on adolescents across the United States, Harker (2001) found that positive parent-child interactions including parental support contributed to higher levels of psychological well-being for first generation immigrant youth.

### Parental Monitoring

Few studies have explored the role of parental supervision and monitoring in Mexican American mental health outcomes. One school-based study, conducted on Mexican adolescents residing in Mexico City, found that greater parental monitoring was associated with lower levels
Family Support and Parental Monitoring as Protective Factors

of depressive symptoms (Gil-Rivas et al., 2003). Similar results were found in a secondary
analysis of a U.S. based study on Mexican American youth (Harker, 2001). These studies
suggest that regardless of country of residence, parental monitoring has a protective impact on
depressive symptoms for Mexican origin youth. Furthermore, one study that explored the
relationship between gender differences and the protective effects of parental supervision on
adolescent depression revealed that parental monitoring alleviated depressive symptoms for
females but not for males (Jacobson, 2000).

Family Support, Parental Monitoring, and Alcohol Use

Family Support

Despite a paucity in the literature on family support and its impact on Mexican American
children, the importance of family connectedness in reducing the risk for alcohol use among
Latino youth has been established (Sale et al., 2005; Bray et al., 2000). Gil et al., (2000) and
Andrade (2003) revealed that while acculturative stress may place immigrant children at risk,
parental and cultural resources have a significant influence in preventing alcohol and drug use in
Latino youth.

Studies on alcohol consumption by students revealed that family support both suppressed
alcohol consumption (Duncan et al., 1994; Sale et al., 2005) and influenced adolescent decisions
to initiate substance use more so than peer influences (Coombs et al., 1991; Marsiglia et al.,
2002). Similar findings were reported in a sample of non-Latino youth (Watt & Rogers, 2007),
indicating that family support may prove to be essential in alcohol prevention for all ethnic
groups. Unfortunately, in spite of its protective aspects one study of students in grades 6 through
10 found that family cohesion appears to decrease during adolescence (Baer, 2002), a
developmental time period where teens may in fact need their parents most.
Family Support and Parental Monitoring as Protective Factors

Several studies looked at constructs related to family support such as positive family interactions and parental warmth. In a longitudinal study of predominately Mexican American adolescents, Romero and Ruiz (2007) found that children who spent more time with their family were at decreased risk for engaging in risk-taking behaviors and were less likely to turn to alcohol to cope with stressors. In a review of studies that explores drug use in Latino youth, De la Rosa (2001) determined that parental warmth and positive parent-child relationships protected Hispanic children from substance abuse. Similarly, prior research utilizing the data set to be examined in this dissertation has found an inverse relationship between parental warmth and alcohol use in Latino youth (Mogro-Wilson, 2008).

Bray et al., (2000; 2001) examined family influences in alcohol use among Mexican American, Caucasian and African American students and determined that family cohesion and parental attachment helped prevent alcohol consumption in this population. On the contrary, stress associated with separation-individuation and parent-child conflicts was found to be related to alcohol use as a possible means of coping with these circumstances. These are important findings considering previously mentioned studies indicating that Mexican American youth are more likely to drink to alleviate stress compared to other ethnic groups (Tschann et al., 2005; Stewart & Power, 2003; Boles et al., 1994).

Parental Monitoring

Parental monitoring which can include limiting independence and ensuring close monitoring of adolescents is a parenting practice often used by Latino parents as a means of protecting their youth from adverse external influences (Guilamo-Ramos et al., 2007; Bulcroft et al., 1996). Several studies on the role of parental monitoring have established that increased parental supervision may shield Mexican American adolescents from alcohol use (Driscoll et al.,
Family Support and Parental Monitoring as Protective Factors

2008; Guo, 2001; Mogro-Wilson, 2008), delinquent behaviors (Baer, 1999; Cota-Robles et al., 2006; Gil & Wagner, 2000), and illicit drug use (De La Rosa, 2001).

Studies that compared adolescent alcohol use in multi-ethnic samples found that parental monitoring was significantly related to decreased drinking (Bray et al., 2001; Bray et al., 2000; Loveland-Cherry et al., 1996). Furthermore, two articles that explored the buffer effects of parenting behaviors noted gender differences, indicating that parental monitoring was more successful in preventing risky behaviors in boys than girls (Neff, 1993; Cota-Robles et al., 2006). These findings are important because the literature consistently indicates that deviant and risk taking behavior are positively correlated with alcohol use (Gil & Wagner, 2000; Zapata & Katims, 1994).

One study was located that did not find parental monitoring to play a significant role in alcohol consumption by Mexican American youth (Voisine et al., 2008). The researchers in this study found that parenting norms and permissiveness was more significant than parental monitoring in preventing alcohol use in this population. It is essential to note that this study differed from others discussed in this review in its position of parental control as being a separate concept and not an extension of familismo. This suggests that variability in definitions of parental monitoring may account for differences between this study and others discussed.

Orientation to U.S. Culture, Family Support and Parental Monitoring

In looking at the impact of acculturation on family support and parental monitoring, it is important to consider that Mexican immigrant families may face unprecedented challenges as their children enter adolescence that native born families do not contend with. Unresolved separation issues may surface and further complicate important developmental tasks during this time period. Immigrant children may have experienced separation from extended family
members when they left for the United States or may have been separated from parents who may have migrated before them. In some cases, children may migrate before their parents to live with relatives while their parents navigate immigration policies.

Immigration status may also create additional tension for some families as native born children of undocumented parents may live in silent fear that their parents may one day be deported. Furthermore, children whose parents are undocumented may have experienced separation from one or both parents due to deportation or may be unable to return to visit family members in their country of origin. All of these circumstances may exacerbate feelings of loss, place additional stress on families during this time period, and can confound what theorists refer to as a secondary period of separation-individuation (Blos, 1967).

In addition to facing social and political challenges, exposure to U.S. culture impacts Mexican American parents and their child rearing practices in ways that may enhance or diminish the protective effects of family support and parental monitoring on adolescent well-being. Increased acculturation, which has been associated with additional financial resources (Harker, 2001; Harris, 2000; Padilla, 1997), may reduce the negative impact of low socioeconomic status for Mexican American families, potentially minimizing distress within the family system. However, differences between Latino and American value systems can fuel conflicts between parents and their children, who may feel torn between these distinct cultures (McCarthy, 1998; Ramirez, 1969). These conflicts can lead to an erosion of family unity, leaving Latino children without the support they need during this transitional period and placing them at risk for substance abuse (Smokowski & Bacallao, 2007; Rumbaut, 1994).

Increased exposure to Western American culture has been associated with distinctions in parenting practices between first generation and later generation Mexican American parents...
Family Support and Parental Monitoring as Protective Factors

(Buriel, 1993). Studies by Sirolli (2004) and Buriel (1993) indicate that parents who are more oriented to U.S. culture tend to emphasize family support in their parenting styles while families that are more affiliated to Mexican culture tend to focus on factors related to parental monitoring, such as guiding and advising (Sirolli, 2004) and responsibility (Buriel, 1993). These findings illustrate that there are important within group differences in family functioning among Mexican Americans and prompt the exploration of generational status as a possible explanation of these differences.

Family Support

Research that explores the impact of acculturation on family support has arrived at equivocal conclusions. One study that looked at the relationship between increased acculturation and family support in Hispanic families found that despite changes in other dimensions of familismo, perceived family support remained constant with increased acculturation (Sabogal et al., 1987).

A recent study (Baer et al., 2006) showed that Mexican Americans oriented to Mexican culture displayed a significant increase in family cohesion during mid adolescence. One possible factor related to this is that Mexican-oriented families have been found to place a strong emphasis on the use of family for support while being less supportive of and placing more restrictions on adolescent peer relationships compared to Anglo-oriented families (Updegraff et al., 2007).

Two studies utilizing the same data set arrived at differing conclusions regarding the possible impact of acculturation on Latino family support. Harker (2001) found higher rates of perceived parental support in children of first generation immigrant parents when compared to children of second generation and later immigrant parents. A later study found that parental
warmth did not decline but rather, remained constant with increased acculturation (Mogro-Wilson 2008). Differences in measurements of acculturation may have played a role in the different outcomes in these studies. While this present study also utilizes the ADD Health data set, it differs from these two studies in that it explores both depression and alcohol use in relation to generational status while focusing exclusively on Mexican origin youth.

*Parental Monitoring*

Several studies have linked increased generational status to permissive parenting and decreased parental control. In a study that explored parenting styles of parents of Mexican-origin teens, Driscoll et al., (2008) found that more first generation immigrant parents utilized authoritative parenting styles including control over their children compared to U.S. born parents. Consequently, third generation youth were less likely to experience parental control and were found to be at higher risk for engaging in delinquency when compared to less acculturated youth. Another study (Harker, 2001) found that parents of first generation immigrant youth supervised their children more than parents of second generation immigrant youth. These studies indicate that with each successive generation, Latino parents exert less supervision over their children, therefore decreasing one of many traditional parenting practices known to protect these youths from engaging in risky behaviors. One study that measured acculturation level by language spoken at home found that speaking English at home was related to lower parental control, which in turn had a significant impact on alcohol use in this Latino sample (Mogro-Wilson, 2008).

In summary, empirical research has underscored the importance of understanding protective factors of Mexican American culture, therefore supporting the purpose of this dissertation in further exploring this topic. Furthermore, as this review has demonstrated, aspects
Family Support and Parental Monitoring as Protective Factors

of familismo particularly, family support and parental monitoring, have a significant influence on adolescent mental health and alcohol use in the Mexican American community. Empirical research is limited in that the majority of articles that explore these variables tend to group the Latino population as a whole. Further investigation is needed on individual subgroup differences, particularly in rapidly growing immigrant populations such as Mexican Americans.
CHAPTER III
METHODOLOGY

Statement of Research Questions

Research Questions

The purpose of this study was to explore the effects of family support and parental monitoring on depression and alcohol use in Mexican American adolescents. Generational status, socioeconomic status, gender, and age were also examined. The study was a secondary analysis of data from The National Longitudinal Study of Adolescent Health (ADD Health). The ADD Health data used for this study was obtained during 1994-95.

While this first wave of the ADD Health study was conducted approximately 15 years ago, examination of this data set is valuable for several reasons. ADD Health is one of the largest nationally representative data sets available on Mexican American adolescents and it contains information not captured elsewhere, which is a key reason why recent articles and dissertations continue to use this data set (Mogro-Wilson, 2008; Guilamo-Ramos et al., 2004; Harker, 2001). Since there is a limited amount of research regarding risk and protective factors for depression and alcohol use in Mexican American youth, this large data set provides important information on over 1,551 Mexican American youth residing across the United States during that time period. Furthermore, while the study did not inquire about immigration status, the participants in the ADD Health study consisted of Mexican American adolescent students across the country who due to their age were required to attend school regardless of immigration status, therefore providing information about this understudied subpopulation. Lastly, in addition to providing information about health behaviors at the time, ADD Health is a longitudinal study that is still in
This study investigated four research questions. The first two questions were intended to address the entire Mexican American sample, while questions three and four addressed youth who reported using alcohol. Of the 1551 Mexican American students examined in this dissertation, 949 respondents reported drinking alcohol and constituted the sample for the study questions on the frequency, amount, and consequences of alcohol use. The research questions and hypothesis were:

1) Are generational status, gender, age, and socioeconomic status of Mexican Americans related to their levels of depression and use of alcohol?

Hypotheses: Depression and alcohol use will increase with generational status for both males and females. Overall females, older adolescents, youth with low socioeconomic status, and youth who use alcohol will have higher rates of depression. Those who are older, third generation, male, have higher levels of depression, and who report lower socioeconomic status are expected to have higher levels of alcohol use.

2) What family support and parental monitoring factors affect levels of depression and/or alcohol use in Mexican American adolescents? Do they serve as mediators of the relationship between adolescent characteristics and depression and alcohol use?

Hypotheses: Youth with higher levels of family support and higher levels of parental monitoring will have lower levels of depression and alcohol use. Higher family support and parental
Family Support and Parental Monitoring as Protective Factors

monitoring will mediate the predicted factors associated with depression such as being female, older, being second or third generation, and having low socioeconomic status. Higher family support and parental monitoring will also mediate the predicted factors associated with alcohol use including being older, native born, male, and having low socioeconomic status.

3) Are generational status, gender, age, age of first use of alcohol, and socioeconomic status of Mexican American adolescents related to their frequency and amount of alcohol use? Is frequency and amount of alcohol use directly or indirectly involved in levels of depression? Do family support and parental monitoring serve as mediators in the relationship between adolescent characteristics and frequency of alcohol use?

Hypotheses: Second and third generation, older, male adolescents, and those who drink at an early age and who have low socioeconomic status will use alcohol more frequently, consume more alcohol, and become drunk on more days. Youth with higher levels of depression will also drink more frequently, consume more alcohol and become intoxicated on more days. Family support and parental monitoring factors will serve as mediators in the relationship between these risk factors and frequency of alcohol use. Youth with higher rates of family support and parental monitoring will also drink less frequently.

4) Are generational status, gender, age, age of first use, and socioeconomic status of Mexican American adolescents related to the occurrence of social problems resulting from alcohol use? Is the occurrence of social problems related to alcohol use directly or indirectly involved through their effects on levels of depression? Do family support and parental monitoring serve as
Family Support and Parental Monitoring as Protective Factors

mediators in the relationship between adolescent characteristics and the occurrence of social problems from alcohol use?

Hypotheses: Male, older, second and third generation youth, and those who consumed alcohol at an early age and whose families have low socioeconomic status were hypothesized to have more alcohol-related social problems. Youth with higher levels of depression will also experience more alcohol-related social problems. Family support and parental monitoring factors will serve as mediators in the relationship between these risk factors and experiencing social problems from drinking. Youth with higher rates of family support and parental monitoring will also experience fewer social problems as a result of drinking alcohol.

Definition of Concepts

The conceptual definitions for each variable used in this study are given below. Operational definitions and measures for each variable will be described in the following section.

*Mexican American:* Respondents who reported being of Mexican origin were considered Mexican American. This included youth born in Mexico, U.S. born youth whose mothers were born in Mexico, and youth who report being of Mexican descent who were born in the U.S. and whose parents were also born in the U.S.

*Parental Monitoring:* Parental monitoring was defined in terms of parental presence before and after school and during evening meals. These items were also used in a previous study (Harker, 2001) to measure parental supervision. Since only 5% of the respondents of the ADD health parent interview were fathers or male head of households (Mogro-Wilson, 2008), the parental monitoring information in this study focused specifically on the child’s responses about the resident mother.
Family Support and Parental Monitoring as Protective Factors

*Family Support:* Family support was defined in terms of the adolescent’s perceived support from parents and other family members and included feelings of being cared for and understood, feelings about wanting to leave home (reversed for calculating the scale scores), having fun with family members, and feeling attended to.

*Depression:* For the purpose of this study the term depression referred to the presence of depressive symptoms and the focus was on the frequency of depressive symptoms.

*Alcohol use:* Alcohol use was defined in terms of reported use of alcohol that occurred more than 2 or 3 times in their lives. The study also examined the age of first use of alcohol, frequency of alcohol use, number of drinks consumed each time, and the occurrence of social problems resulting from alcohol use. Questions pertaining to alcohol use in general were geared toward all Mexican American respondents. Questions pertaining to frequency of use, number of drinks consumed, and problems related to alcohol use were answered only by those respondents who reported using alcohol more than 2 or 3 times in their lives.

*Generational Status:* Information about the resident mother was used to determine generational status. In order to compare the impact of parental monitoring and family support by both U.S. born mothers and Mexican born mothers, the youth in this study were categorized as first, second, and third generation plus. As in other studies that looked at generational status (Harker, 2001; Mogro-Wilson, 2008; Cavanagh, 2007), Mexican immigrant youth who reported being born in Mexico were considered first generation Mexican American. Mexican American youth
Family Support and Parental Monitoring as Protective Factors

of Mexican-born mothers who reported being born in the United States were considered second
generation Mexican American. U.S. born Mexican American youth with U.S. born mothers were
considered third generation plus. While information about paternal birthplace is also important,
for the purpose of this study the information about maternal place of birth was used to determine
the adolescent’s generational status because the mother was the primary informant in the in-
home interviews.

**Gender:** Gender referred to the adolescent’s reported sex as male or female.

**Age:** The adolescent’s age was calculated based on date of birth. The age range of the
participants in the study was between 12 and 21 years of age.

**Socioeconomic Status:** Socioeconomic status was determined based on the family’s reported
ability to pay their bills as well as information about whether or not they received public
benefits. Reported income was not included as most families did not report income information
in the data set.

**Research Design**

The present study is a quantitative study using secondary data analysis. The data used for
the study was obtained from Wave I of The National Longitudinal Study of Adolescent Health
(ADD Health) data set. The original ADD Health study used a combination of surveys and
interviews to obtain information about adolescent health behaviors and consisted of a two part
series that included an in-school questionnaire and a 90 minute in-home interview (Sieving et al.,
2001). Students who completed the in-school portion of the interview were eligible to participate
One particular benefit of this study is that it is a nationally representative study of secondary school students in America. Using a nationally representative study was beneficial in answering the research questions as it allowed the rare opportunity for exploration of depression and alcohol use in Mexican American youth across the United States. However, it is important to note that in order to gain more information about particular groups, some groups were overrepresented in the study. Information about the sampling strategy will be discussed further in the following section.

Population Studied

The ADD Health study consisted of a sample of students in grades 7 through 12 attending various schools across the United States. The age range of the participants was between 12 and 21 years old. The present research focused on adolescent students who identified as being of Mexican origin. In order to allow for comparison between different generations, both Mexican Americans born in Mexico and those born in the United States were included in the study.

Sampling Frame

The following information about the sampling frame is available through the ADD Health website (http://www.cpc.unc.edu/projects/addhealth/design/wave1). The primary sampling frame for ADD Health initially included all high schools in the United States. From this original sample, a systematic random sample of 80 high schools was selected to participate in the study. Systematic sampling methods and stratification were utilized to ensure that the schools selected represented U.S. schools by geographic region, urbanicity, ethnicity, and grade (Bearman, Jones, & Udry, 1997; Tourangeau & Shin, 1999). High schools eligible to participate
were required to include an 11th grade and enrolled more than 30 students. More than 70 percent of the originally sampled high schools participated. Each school that declined to participate was replaced by another school within the stratum.

Feeder schools were identified from each of the participating high schools. All the participating feeder schools eligible for participation included a 7th grade and sent at least five graduates to the affiliated high school. From among the feeder schools, one was selected with probability proportional to the number of students it contributed to the high school. If the feeder school declined to participate, a replacement was selected. The school selection process resulted in a pair of schools in each of 80 communities. There were a total of 132 schools in the core study (Bearman, Jones, & Udry, 1997).

All students who completed the in-school questionnaire were eligible for selection into the core in-home interview sample. Students in each school were stratified by grade and sex. A sample of 20,745 students were selected for an in-home interview, which included a core-sample of 12,105 adolescents as well as certain groups that were over-sampled based on ethnicity, saturation, disability, and sibling pairs to allow for research regarding understudied populations and environmental and family relationships. This information is pertinent to this present study as the over-sampling of these groups requires the use of sampling weights in order to conduct an analysis of the data (Chantala & Tabor, 1999).

Approximately, 11,609 (56%) respondents of the 20,745 students that completed the in-home interviews reported using alcohol more than 2 or 3 times in their life. This sample included 1702 total Mexican American adolescents who participated in the in-home interview and 62% or 1045 of them who reported drinking alcohol. In order to increase generalizability and to account for the over-sampling of certain populations in the original study design, the data analysis in this
study required the use of primary sampling unit, region, and population weights. The use of these weights decreased the total number of Mexican Americans in the study to 1551 and the number of Mexican American respondents who reported drinking to 949. However, the percentage of Mexican Americans who reported alcohol use remained at 62%.

Of the 1551 Mexican Americans explored in this study, 1424 classified as first, second, or third generation. The remaining 127 were unable to be classified by generational status due to missing information about their birthplace or their mother’s place of birth. In order to capture important within group differences by generational status, a sub-sample was created with the Mexican American youth who were able to be classified by generational status. The data analysis conducted for this study focused on the weighted sample of 1424 Mexican American students in the in-home interview who were categorized by generational status. Of the 1424 Mexican American youth categorized by generational status, 63% or 875 reported drinking alcohol.

Nature of the Data

The data used in this study was obtained from The National Longitudinal Study of Adolescent Health (ADD Health). ADD Health is a longitudinal study of students in grades 7 through 12 across the country conducted during the 1994-1995 school year. The study was designed to provide information on health behaviors of adolescents in the United States and sought to identify individual and social factors that prevented or promoted health risk behaviors for this population (Sieving et al., 2001).

The ADD Health study was mandated and funded by U.S. Congress. The initial study commenced with an in-school questionnaire that was administered to students in grades 7-12. In addition to obtaining information from students, data was also gathered from additional sources such as parents, family members, school personnel, and peers. The initial ADD Health study
was followed with in-home interviews conducted in four different waves during 1994-95, 1996, 2001-02, and 2007-08 (Bearman, Jones, & Udry, 1997). Wave I of ADD Health focused on the factors that contribute to adolescent health and risk-taking behaviors.

The in-home portion of the interview was the focus of this present study. The student in-home interview consisted of the completion of a 135-page in-home survey including several items designed to measure constructs related to adolescent development such as health status, family interactions, peer relationships, and romantic relationships among others (Sieving et al., 2001; Bearman, Jones, & Udry, 1997).

**Operational Definitions of Variables and Measures**

The dependent variables investigated in this study were depression and alcohol use, including the frequency of alcohol use, the amount of alcohol use, and the occurrence of social problems related to alcohol use. The independent variables that were investigated in this study included: parental monitoring, family support, generational status, socioeconomic status, gender, and age. In order to capture the constructs of depression, social problems related to alcohol use, and family support and parental monitoring, scales were created in order to produce single variables for each construct. The questions used to create the parental monitoring, family support and alcohol use scales were extracted from different sections of the data set. The depression scale was adapted from the feeling scale portion of the ADD Health data set. The use of the scales allowed the responses of each index to be summed up in order to produce the participant’s average score on the particular scale.

Cronbach's alpha was used as a criterion for assessing the internal reliability of the rating scales. The depression scale yielded a satisfactory Chronbach’s alpha of 0.87, the social problems related to alcohol use scale yielded a satisfactory Chronbach’s alpha of 0.76 and the
Family Support and Parental Monitoring as Protective Factors

family support index yielded a satisfactory Chronbach’s alpha of 0.75. The parental monitoring scale yielded an unsatisfactory Chronbach’s alpha of 0.3 and therefore this scale was eliminated and each item on this scale was instead explored individually. The following is a list of the independent and dependent variables explored in this study along with a description of how they were measured and coded:

1. *Mexican American:* Students who answered A) What is your Hispanic or Latino background? with a response of 1= Mexican/Mexican American were considered Mexican American. Only those respondents coded as 1 were included in the present study.

2. *Parental Monitoring:* The following questions were used to measure parental monitoring: Question A) How often is she at home when you leave for school? Question B) How often is she at home when you return from school? Question C) How often is she at home when you go to bed? Possible responses for Questions A through C included 1= never; 2= almost never; 3=some of the time; 4=most of the time; 5=always. Question D) On how many of the past 7 days was at least one of your parents in the room with you while you ate your evening meal? Possible responses included 1= 0-1 day; 2= 2 days; 3= 3 days; 4= 4 days; 5= 5-7 days. Combining these items to form a scale yielded an alpha of 0.3 which was much lower than the acceptable Chronbach’s alpha of 0.7 therefore, each item was explored individually in relation to the other variables.

3. *Family Support:* In operationalizing family support, a similar construct as the social support index used by Harker (2001) was utilized with the exclusion of those questions that did not specifically pertain to support by family members. The questions selected for the family support
Family Support and Parental Monitoring as Protective Factors

index included: A) How much do you feel that your parents care about you? B) How much do you feel that people in your family understand you? C) How much do you feel that you want to leave home? D) How much do you feel that you and your family have fun together? E) How much do you feel that your family pays attention to you? Response options include 1= not at all; 2= very little; 3= somewhat a bit; 4= quite; 5= very much. In this index, question C was reverse coded. The scores were summed with a higher score on the index indicating higher family support. The sum of the answers was divided by the number of items in order to obtain the mean. The mean was used to interpret the responses like item answers. Examination of the reliability of the family support index resulted in a satisfactory Chronbach’s alpha of 0.75. Family support items were also explored individually to determine precisely which aspects of family support impacted alcohol use and depression.

4. Depression: The depression variable was measured in terms of the frequency of depressive symptoms. The questions used to capture depressive symptoms were adapted from the CES-D (Center for Epidemiologic Studies Depression Scale) (Radloff, 1997) and were used in WAVE I of the study in a section called The Feelings Scale. Questions include: A) You were bothered by things that usually don’t bother you B) You didn’t feel like eating, your appetite was poor C) You felt that you could not shake off the blues, even with help from your family and your friends D) You felt that you were just as good as other people E) You had trouble keeping your mind on what you were doing F) You felt depressed G) You felt that you were too tired to do things H) You felt hopeful about the future I) You thought your life had been a failure J) You felt fearful K) You were happy L) You talked less than usual M) You felt lonely N) People were unfriendly to you O) You enjoyed life P) You felt sad. Q) You felt that people disliked you R) It was hard to
get started doing things S) You felt life was not worth living. The response options were 0=never or rarely; 1= some times; 2= a lot of the time or 3= most or all of the time. These questions were coded so that the higher the number, the more symptoms of depression. Items D, H, K, and O were reverse coded. In examining the reliability of the depression scale, a satisfactory Chronbach’s alpha of 0.87 was obtained in this sample.

5. Alcohol use: In order to capture information about general alcohol use, participants were asked: A) Have you had a drink of beer, wine, or liquor—not just a sip or a taste of someone else’s drink—more than 2 or 3 times in your life? Participants who answer “no” were not eligible to answer further questions on other aspects of alcohol use were coded as 0. Participants who answered “yes” to drinking alcohol more than 2 or 3 times in their life were coded as 1 and then asked questions that addressed age of first use, frequency of use, and the occurrence of social problems related to alcohol use.

6. Age of first use: To obtain information about the age of first use, adolescents were asked: Think about the first time you had a drink of beer, wine, or liquor when you were not with your parents or other adults in your family: A) How old were you then? Responses for this question were coded the same number as the adolescent’s reported age of first alcohol use. In examining response options to this question, several outliers including youth who reported drinking as young as three years of age were discovered. As a result, 25 outlier cases where adolescents reported drinking prior to age 9 were identified and eliminated.

7. Frequency of use and amount of alcohol consumed:
Family Support and Parental Monitoring as Protective Factors

Frequency of use was examined by the following questions: A) During the past 12 months, on how many days did you drink alcohol? B) Over the past 12 months, on how many days have you gotten drunk or “very, very high” on alcohol? Responses for questions A and B were combined and coded as 0=never; 1= 1 or 2 days in the past 12 months; 2= once a month or less (3-12 times in the past 12 months); 3= 2 or 3 days a month; 4= 1 or 2 days a week; 5= 3 to 5 days a week; 6= every day or almost every day. To obtain information about alcohol consumption, participants were also asked: C) Think of all the times you have had a drink during the past 12 months. How many drinks did you usually have each time? (A “drink” is a glass of wine, a can of beer, a wine cooler, a shot glass of liquor, or a mixed drink.). The response option for question A ranged from 1 to 20 and was coded the same as the number of drinks the adolescent reported drinking.

8. Social problems related to alcohol use:

Questions used to assess the occurrence of social problems from alcohol use were selected from a section titled, Tobacco, Alcohol, and Drugs in the original ADD Health Study. The questions included: Over the past 12 months, how many times has each of the following things happened? A) You got into trouble with your parents because you had been drinking. B) You’ve had problems at school or with schoolwork because you had been drinking. C) You had problems with your friends because you had been drinking. D) You had problems with someone you were dating because you had been drinking. E) You did something you later regretted because you had been drinking. Over the past 12 months, how many times F) Did you get into a sexual situation that you later regretted because you had been drinking? G) Did you get into a physical fight because you had been drinking? Answers to the above questions were coded as 0= never; 1= once; 2= twice; 3= 3-4 times; 4= 5 or more times. The responses from A through G were used to
form a mini scale and the answers were summed across the seven questions. The sum of the answers was divided by the number of items in order to obtain the mean. The mean was used to interpret the responses like item answers. The higher the mean, the more occurrences of social problems related to alcohol use. The social problems related to alcohol use scale yielded a satisfactory Chronbach’s alpha of 0.76.

9. **Generational status:** Responses about country of birth and mother’s country of birth was used to determine generational status. Generational status was divided into three categories; first generation, second generation and third generation plus. Responses to the following questions were used to determine generational status, A) Were you born in the United States? B) Was she (your mother) born in the United States, C) In what country was she born? Response options included 0= no and 1= yes. If the participant reported 1=yes, to being born in the United States as well as, 0= no to their mother being born in the U.S. and also reported that their mother was born in Mexico, they were considered second generation. Students who responded 0= no (not born in the United States) were then asked: In what country were you born? If the respondent was born in Mexico, then this respondent was considered first generation. Participants who reported that they were 1) born in the United States and 2) their mother was born in the United States but who identified as being of Mexican origin were considered third generation plus. Only those adolescents able to be categorized by generational status were included in the study.

10. **Socioeconomic status:** Socioeconomic status was measured by parent response as “yes” or “no” to the following individual questions in the parent interview section 1) Do you have enough money to pay your bills? And 2) Last month, did you or any member of your household receive
Family Support and Parental Monitoring as Protective Factors

A) Social Security? B) Supplemental Security Income (SSI)? C) Aid to Families with Dependent Children (AFDC)? D) Food stamps? E) A housing subsidy or public housing? F) Unemployment? Response options were 0= no and 1=yes and each item was examined individually.

11. Gender: Gender was operationalized in terms of the adolescent’s reported sex. Gender was coded as: 0=female and 1= male.

12. Age: Age was obtained based on the adolescent’s date of birth at the time of the study.

Data Collection and Procedure

The data that was analyzed in the present study was originally obtained during Wave I (1994-1995) of the in-home portion of the adolescent and parent interview. In order to participate in the study, parental consent was required. Some school districts used passive consent in which students participated in the study unless the consent form was returned with a signature indicating that the child should not participate (Mogro-Wilson, 2007, 2008).

All students who took the in-school questionnaire portion of the interview were eligible to participate in the in-home portion of the interview. Participants for the in-home interview were selected at random and were stratified by grade and sex (Resnick et al., 1997). As the data for the majority of the variables that were explored in this study were obtained in the in-home interview, students that did not participate in the in-home interview were excluded.

The in-home interview was approximately 90 minutes long and was conducted between April and December of 1995. Of the adolescents who completed the in-home interview, 85.6% also had parents who completed a half-hour interview. The information provided during the
Family Support and Parental Monitoring as Protective Factors

parent interview was utilized in this dissertation to acquire data about the family’s socioeconomic status and maternal place of birth.

The primary method of data collection included the use of laptop computers where students entered their responses to inquiries made by the interviewers. All respondents of the ADD health in-home interview received the same 135-page survey (Sieving et. al 2001). To prevent response bias, students utilized an audio computer called an audio-CASI to respond to potentially stigmatizing questions about alcohol use and other behaviors.

Methods of Data Analysis

In order to answer the research questions and to determine what characteristics impacted depression and alcohol use, a multivariate statistical analysis was employed. The use of multivariate analysis allowed for the examination of the relationship among several variables (Rubin & Babie, 2005).

Multiple regression, a method of multivariate statistics, was used to determine which independent variables predicted depression and alcohol use in this sample and to what extent family support and parental monitoring served as moderators for depression and alcohol use. In cases where the dependent variable had dichotomous responses, logistic regression was utilized. The impact of each independent variable on the dependent variable was explained in terms of odds ratios.

The purpose of multiple regression is to learn more about the relationship between variables in order to determine which independent variables predict the dependent variables (Brace et al., 2006). Multiple regression was the appropriate analytical strategy to answer the research questions in this study because it takes into account the complex relationship that exists among variables when looking at human behavior.
Assumptions for Multiple Regression

In analyzing categorical variables, logistic regression is used which makes no assumption about the distribution of the independent variables. The use of multiple regression with ordinal and interval variables however, relies heavily on four underlying assumptions being satisfied. The four assumptions are: (1) variables are normally distributed, (2) there relationship between the independent and dependent variables is linear, (3) variables are measured without error, and (4) there is homoscedasticity. Various statistical tests were used to determine whether these assumptions were met. As to variables being normally distributed, skewness and kurtosis were examined by using Cameron and Trivedi’s decomposition of IM-test which indicated statistically significant p-values at the 95% confidence interval, indicating that the null hypothesis is rejected, meaning there was not normal distribution in the data. Four of the dependent variables including depression, number of days the adolescent got drunk, social problems as a result of drinking, and number of drinks consumed were not normally distributed.

In order to address the issues of non-normality, the data was first examined for outliers. Outliers pertaining to alcohol use questions were found and therefore, 25 cases where the adolescent reported drinking prior to age 9 were removed and 30 cases where the adolescent reported drinking over 20 drinks a day were considered outliers and removed in order to increase the likelihood of normal distribution of the data. In addition to this, several transformations were conducted to determine which transformation of the given variable provided the best approximation of a normal distribution. The use of these transformations created an approximation of a normal distribution when conducting the regressions. Two different kinds of transformations were selected to produce new variables for depression, social problems related to alcohol use, as well as two of the frequency of alcohol use variables. For the variables pertaining
to depression, number of days the adolescent got drunk and social problems as a result of
drinking, the square root was utilized. For the variable pertaining to number of drinks consumed,
the log of this variable was used. Normal distribution of the transformed variables was
determined by measuring the closeness to the fitted line for normality of the residuals.
Comparisons of the pre-transformed and transformed variables are displayed in Appendix B,
Figure 1.

Linearity in the relationships was examined and confirmed by computing the residual
plots across fitted values. Finally, a link test was conducted to determine whether there were any
 specification errors in the regression models. The parameters of the p-values in the link test were
statistically significant at the 95% confidence interval, indicating that the regression models were
valid and properly specified.

Multicollinearity occurs when two or more predictor variables in a multiple regression
model are highly correlated. In order to check for multicollinearity, the Tolerance level and
Variance Inflation Factor were obtained by running a regression model including all of the
independent and dependent variables. Analysis of the data revealed a Tolerance level of .86 and
a Variance Inflation Factor of 1.16 indicating that there was no multicollinearity.

Heteroscedasticity determines whether the error variance is constant and exhibits similar
amounts of variance across all levels of the independent variables (University of Texas;
Weinberg & Abramowitz, 2002). Several tests were used to examine heteroscedasticity. The
Shapiro-Wilk w test for normal data and Cameron and Trivedi’s (2009) decomposition of IM-
test both indicated p-values of 0.00 at the 95% confidence interval, indicating that the null
hypothesis was rejected. Heteroscedasticity was also tested using Breusch-Pagan/Cook-
Weisberg’s test for Heteroscedasticity. The Breusch-Pagan test is designed to detect linear forms
Family Support and Parental Monitoring as Protective Factors

of heteroscedasticity. This resulted in a large chi-square of 734.70 and a p-value of 0.00 at the 95% confidence interval indicating that the homoscedasticity assumption was rejected and therefore, there was heteroscedasticity in the data.

Heteroscedasticity in the data analysis was accounted for by using a robust standard error of measurement. Because the analysis conducted was a survey regression requiring the use of weights and the use of a linearized subpopulation, this formula automatically utilizes a robust estimator of variance known as the White estimator of variance and therefore, corrects for heteroscedasticity (StataCorp., 2007; White, 1980).

Discussion of Ethical Issues

The following information provides details about the research procedures used in the initial ADD Health study and can be found on the ADD Health website (Bearman, Jones, & Udry, 1997). As noted previously, some school districts that participated in the study used passive parental consent where students participated in the study unless the consent form was returned with a signature indicating that the child should not participate. Information is not available about the language of the forms or other methods that may have been used such as telephone calls home to obtain consent for parents who may speak different languages or who may be illiterate. This presents a concern as these parents may not have been fully in agreement with their child’s participation in the study. Nonetheless, the participants themselves were able to terminate participation in the study without any repercussions. One concern noted in ADD Health is that of deductive disclosure (Carolina Population Center, ADD Health). In order to minimize the risk of deductive disclosure, the researcher and faculty members conducting this secondary analysis are the only ones who have access to the information derived from the data.
Family Support and Parental Monitoring as Protective Factors

set. The data will be kept in a locked file cabinet for at least 3 years after the completion of the study and then it will be destroyed.

In keeping with New York University’s policy in ensuring the protection of human subjects, the requirement of passing the NYU Institutional Review Board’s certification exam was satisfied on November 18, 2008. IRB approval to conduct this data analysis was obtained on December 17, 2009.
CHAPTER IV
RESULTS

Preliminary Analysis

Of the 1551 Mexican Americans explored in this study, 1424 were able to be classified as first, second, or third generation plus. There was missing data on generational status for approximately 8% of the sample (n=127) which was due to incomplete information from the informants. Due to the importance of understanding within group differences across generations, the data presented in this study is based on the 1424 respondents who were able to be categorized as first, second, or third generation (see Table 1).

Generational Status

Approximately 23% (n=333) of the adolescents in this sample were born in Mexico and were considered to be first generation Mexican Americans. Thirty one percent (n=445) were second generation, indicating that they were born in the United States however, their mothers were born in Mexico, and 45% (n=646) were third generation plus, U.S. born children of U.S. born mothers.

Table 1. Demographic sample characteristics (N=1424)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generational Status (n=1424)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First generation</td>
<td>333</td>
<td>23%</td>
</tr>
<tr>
<td>Second Generation</td>
<td>445</td>
<td>31%</td>
</tr>
<tr>
<td>Third Generation Plus</td>
<td>646</td>
<td>45%</td>
</tr>
<tr>
<td>Gender (n=1400)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>712</td>
<td>51%</td>
</tr>
<tr>
<td>Female</td>
<td>688</td>
<td>49%</td>
</tr>
<tr>
<td>Age (n=1000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td>0.2</td>
</tr>
<tr>
<td>13</td>
<td>46</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>141</td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td>136</td>
<td>14</td>
</tr>
<tr>
<td>16</td>
<td>204</td>
<td>20</td>
</tr>
</tbody>
</table>
The youth in this study were almost equally divided by gender, with 51% of Mexican American adolescents being male and 49% female. The mean age of the males in this study was 16.3 and of the females, 16.2. Comparison of mean age differences indicated that there was no significant difference in age between genders, \( F(1,128) = 0.62, p = 0.3 \).

**Socioeconomic Status**

Questions pertaining to socioeconomic status were directed to the resident mother and revealed that the majority of Mexican American households, (78%) had enough money to pay their bills (Table 1). Exploration across generational status revealed greater ability to pay household expenses for families of first and third generation Mexican American youth on the Adjusted Wald F-test. A comparison of mean differences found that 81% of mothers of first generation youth reported having enough money to pay their bills \( F(1, 128) = 4.51, p=0.03 \) and 81.4% of third generation youth reported enough money to pay their bills \( F(1, 128) = 8.05, p=0.01 \) when compared to 71% of families with second generation youth. Most Mexican American families (73%) in this study reported that they did not receive public benefits. Specific public benefits received are shown in Table 1. Of those who received public benefits, 15%
Family Support and Parental Monitoring as Protective Factors

received one public benefit, 8% received two benefits, 3% received three benefits, 0.4% received four benefits, and 0.3% received five benefits.

Examination of the receipt of public benefits across generational status indicated that 76% of families of first generation youth did not receive any public benefits, 72% of families of second generation youth did not receive any public benefits and 70% of families of third generation youth did not receive any public benefits. Comparisons revealed no significant differences in likelihood of receiving public benefits between generations, \( F(2, 127) = 0.12, p=0.7 \).

Family Variables

Family Support

Family support was measured on a scale of 1 to 5, where response options included not at all, very little, somewhat, quite a bit, and very much. On the entire scale, the majority (58%) of Mexican American adolescents reported that they felt quite or very much supported by their family. Thirty-five percent reported feeling somewhat supported by their family, 6% reported feeling very little support from their family and less than 1% reported not feeling at all supported by their family. Item and scale scores were between 3.5 and 4.8 (see Table 2). The mean score on the family support scale was similar across generational status \( F(2, 127) = 0.15, p=0.9 \).

The family support items were explored individually and revealed that most (96%) of Mexican American youth felt that their parents cared about them quite a bit or very much. Fifty-five percent of Mexican American teens felt that people in their family understood them quite a bit or very much, while 30% reported feeling they understood them somewhat. Twelve percent reported feeling understood a little by their family and only 3% reported not being understood at all.
Family Support and Parental Monitoring as Protective Factors

The majority of Mexican American youth (64%) reported that they did not want to leave home at all or very little. Nineteen percent reported that they somewhat wanted to leave home, 11% reported that they wanted to leave home quite a bit and 6% reported that they wanted to leave home very much. Most adolescents (87%) reported that they had fun with their family very much, quite a bit, or somewhat while the remaining 13% reported that they had very little or no fun with their family members.

There were no significant differences on the individual family support items by generational status or age. However, males were more likely to report feeling understood by family members \[F(1,128) = 3.83, p=0.05\] compared to females. Significant mean differences were also found between genders on the full family support scale, with males reporting higher levels of family support \[F(1, 128) = 3.8, p=0.05\].

*Parental Monitoring*

Parental monitoring was measured on a scale of 1 to 5 where response options included never, almost never, some of the time, most of the time, and always to questions pertaining to maternal presence before school, after school, before bedtime, and during evening meals. These questions were explored individually and not in the form of a scale due to a low Cronbach’s alpha of the combined items in a scale.

The parental monitoring items were explored individually and revealed frequent parental supervision for the Mexican American adolescents in this study. Most adolescents (75%) reported that their mother was present either always or most of the time before school, 7% reported that their mother was present some of the time before school, but 18% reported that their mother was either almost never or never home before school. Data on maternal presence after school revealed that 60% of the mothers were home after school either most or all of the
Family Support and Parental Monitoring as Protective Factors

time, 15% were home some of the time, and 25% were either almost never or never home after school. Most (94%) of resident mothers were reported to be home when the adolescent went to bed always or most of the time while 6% were home some of the time, almost never, or never. The majority (76%) of Mexican American youth reported eating at least 3 of their evening meals with one of their parents in the past week while 24% reported eating less than 2 meals with their parent(s).

There were no significant differences on gender or age for any of the parental monitoring variables. However, significant mean differences were found between generations in parental monitoring before school (Table 2). Second generation youth reported having a significantly lower likelihood of maternal presence when they left for school compared to first generation youth \[F(1,128)= 6.0, p=.02\] and compared to third generation youth \[F(1, 128)= 4.9, p=.03\]. No generational differences were found on the other parental monitoring variables.

Table 2. Means, Weighted Means, and Significance Tests by Generational Status for Family Support and Parental Monitoring (N=1424)

<table>
<thead>
<tr>
<th>Variable</th>
<th>First Generation</th>
<th>Second Generation</th>
<th>Third Generation</th>
<th>Total Sample</th>
<th>Adjusted Wald F-test (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>F-test</td>
</tr>
<tr>
<td></td>
<td>Weighted M</td>
<td>Weighted M</td>
<td>Weighted M</td>
<td>Weighted M</td>
<td></td>
</tr>
<tr>
<td>Parents care</td>
<td>4.8 (.53)</td>
<td>4.8 (.52)</td>
<td>4.8 (.60)</td>
<td>4.8 (.56)</td>
<td>0.4 (.70)</td>
</tr>
<tr>
<td></td>
<td>4.8</td>
<td>4.8</td>
<td>4.8</td>
<td>4.8</td>
<td></td>
</tr>
<tr>
<td>Family understands</td>
<td>3.6 (.97)</td>
<td>3.5 (1.0)</td>
<td>3.6 (1.1)</td>
<td>3.6 (1.0)</td>
<td>0.6 (.55)</td>
</tr>
<tr>
<td></td>
<td>3.6</td>
<td>3.5</td>
<td>3.6</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>You want to leave home</td>
<td>3.9 (1.2)</td>
<td>3.9 (1.2)</td>
<td>3.7 (1.3)</td>
<td>3.8 (1.2)</td>
<td>2.2 (.12)</td>
</tr>
<tr>
<td></td>
<td>3.9</td>
<td>3.9</td>
<td>3.8</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>You and your family have fun</td>
<td>3.7 (1.0)</td>
<td>3.7 (1.1)</td>
<td>3.8 (1.0)</td>
<td>3.7 (1.1)</td>
<td>0.5 (.62)</td>
</tr>
<tr>
<td>together</td>
<td>3.7</td>
<td>3.7</td>
<td>3.8</td>
<td>3.7</td>
<td></td>
</tr>
</tbody>
</table>
Family Support and Parental Monitoring as Protective Factors

<table>
<thead>
<tr>
<th>Family Support and Parental Monitoring</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your family pays attention to you</td>
<td>3.9 (.91)</td>
</tr>
<tr>
<td></td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>3.9 (1.0)</td>
</tr>
<tr>
<td></td>
<td>3.9 (.96)</td>
</tr>
<tr>
<td></td>
<td>3.9 (.96)</td>
</tr>
<tr>
<td></td>
<td>0.2 (.86)</td>
</tr>
<tr>
<td>Family Support</td>
<td>4.0 (.65)</td>
</tr>
<tr>
<td>(Total Scale)</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>3.9 (.72)</td>
</tr>
<tr>
<td></td>
<td>3.9 (1.4)</td>
</tr>
<tr>
<td></td>
<td>3.9 (.71)</td>
</tr>
<tr>
<td></td>
<td>0.15 (.86)</td>
</tr>
<tr>
<td>Parental Monitoring:</td>
<td></td>
</tr>
<tr>
<td>Mother home when you leave for school</td>
<td>4.1 (1.3)</td>
</tr>
<tr>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>4.0 (1.5)</td>
</tr>
<tr>
<td></td>
<td>4.0 (1.4)</td>
</tr>
<tr>
<td></td>
<td>4.0 (1.4)</td>
</tr>
<tr>
<td></td>
<td>3.3** (.04)</td>
</tr>
<tr>
<td>Mother home when you return from school</td>
<td>3.4 (1.5)</td>
</tr>
<tr>
<td></td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>3.8 (1.5)</td>
</tr>
<tr>
<td></td>
<td>3.5 (1.5)</td>
</tr>
<tr>
<td></td>
<td>3.5 (1.5)</td>
</tr>
<tr>
<td></td>
<td>1.8 (.07)</td>
</tr>
<tr>
<td>Mother home when you go to bed</td>
<td>4.7 (.64)</td>
</tr>
<tr>
<td></td>
<td>4.8</td>
</tr>
<tr>
<td></td>
<td>4.8 (.76)</td>
</tr>
<tr>
<td></td>
<td>4.7 (.71)</td>
</tr>
<tr>
<td></td>
<td>4.7 (.71)</td>
</tr>
<tr>
<td></td>
<td>0.99 (.37)</td>
</tr>
<tr>
<td>Days parent present during evening meal</td>
<td>3.8 (1.6)</td>
</tr>
<tr>
<td></td>
<td>3.7</td>
</tr>
<tr>
<td></td>
<td>3.7 (1.6)</td>
</tr>
<tr>
<td></td>
<td>3.9 (1.5)</td>
</tr>
<tr>
<td></td>
<td>3.9 (1.5)</td>
</tr>
<tr>
<td></td>
<td>1.3 (.28)</td>
</tr>
</tbody>
</table>

Note: N=1424  Standard Deviation in Parenthesis

** p<0.05

Depression

Depression was measured by a feelings scale that looked at symptoms of depression. The scale item responses ranged from 0 to 3 where response options included never or rarely, sometimes, a lot of the time, and most or all of the time. The mean score on this scale was .67 indicating that overall, most Mexican American youth never or rarely felt symptoms of depression. Approximately 80% of the respondents reported that they rarely or never felt depressed, 19.5% reported that they sometimes felt depressed and less than 1% reported that they felt depressed a lot of the time. None reported feeling depressed most or all of the time.

Across generational status, first generation youth reported the lowest levels of depressive symptoms (M=.61) while second generation youth reported the highest levels (M=.72) (see Table 3). A comparison of the means of each generation on the Adjusted Wald F-test found that second generation youth had significantly higher rates of depression compared to first generation youth.
Family Support and Parental Monitoring as Protective Factors

[F(1,128)=10.72, p= 0.00] although they did not have significantly higher levels of depression compared to third plus generation youth.

Consistent with the literature, there were significant mean differences [F (1, 128)= 8.11, p=.01] in symptoms of depression between males and females, with females reporting a mean depression score of .71 compared to males who reported a mean score of .63. Additional analysis of the mean differences revealed that females reported higher depression scores across all generations with second generation females reporting higher levels of depression with a mean score of .75, followed by third generation females with a mean score of .71 and lastly first generation females with a mean score of .62. Significance test results on the Adjusted Wald F-test indicated that these mean scores were significant for second generation females compared to first generation [F(1, 128)= 5.86, p=.02].

Among adolescent males, second generation youth reported the most symptoms of depression with a mean score of .69, followed by third generation males with a mean of .60. First generation males reported lower levels of depression with a mean score of .59. A comparison of mean differences showed that second generation males had significantly higher depression mean scores compared to first generation [F(1, 128) = 3.94, p=.05].

Table 3: Means, Standard Deviations, Weighted Means, and Mean Differences by Generational Status on Depression

<table>
<thead>
<tr>
<th>Variable</th>
<th>First Generation M (SD)</th>
<th>Second Generation M (SD)</th>
<th>Third Generation M (SD)</th>
<th>Total Sample M (SD)</th>
<th>Adjusted Wald F-test (Total Sample)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weighted M</td>
<td>Weighted M</td>
<td>Weighted M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression (Total Sample)</td>
<td>.60 (.39)</td>
<td>.72 (.41)</td>
<td>.65 (.40)</td>
<td>(.40)</td>
<td>5.41***</td>
</tr>
<tr>
<td>Male</td>
<td>.61</td>
<td>.72</td>
<td>.66</td>
<td>.68</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>.57 (.38)</td>
<td>.66 (.38)</td>
<td>.60 (.37)</td>
<td>.63 (.38)</td>
<td>3.94**</td>
</tr>
<tr>
<td></td>
<td>.59</td>
<td>.69</td>
<td>.60</td>
<td>.61 (.37)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.62 (.40)</td>
<td>.78 (.43)</td>
<td>.69 (.43)</td>
<td>.71 (.42)</td>
<td>5.86**</td>
</tr>
</tbody>
</table>

66
Alcohol use was measured categorically with response options including 0=No or 1=Yes to the question, “Have you had a drink of beer, wine, or liquor—not just a sip or taste of someone else’s drink—more than 2 or 3 times in your life”. Sixty-three percent (n=875) of the Mexican Americans in this study answered yes to this question and therefore, constituted the sample for the alcohol use, frequency of alcohol use, alcohol consumption, and social problems related to alcohol use questions. The mean age associated with first use of alcohol was 14.0 years (see Table 4).

Alcohol use results by generational status revealed that 54% of first generation youth reported drinking and 65% of second and third generation youth reported drinking. Significant mean differences were found in alcohol use by generational status on the Adjusted Wald F-test with second and third generation youth being more likely to use alcohol compared to first generation youth (Table 4).

Table 4. Means, Weighted Means, and Significance Tests for Alcohol Use variables by Generational Status

<table>
<thead>
<tr>
<th>Variable</th>
<th>First Generation</th>
<th>Second Generation</th>
<th>Third Generation</th>
<th>Full Sample</th>
<th>Adjusted Wald F-test (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>.54 (.50)</td>
<td>.65 (.48)</td>
<td>.65 (.48)</td>
<td>.63 (.48)</td>
<td>4.8*** (.01)</td>
</tr>
<tr>
<td>Weighted M</td>
<td>.53</td>
<td>.66</td>
<td>.67</td>
<td>.63</td>
<td></td>
</tr>
<tr>
<td>Age of First Use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>14.0 (1.8)</td>
<td>14.0 (1.8)</td>
<td>13.7 (1.8)</td>
<td>13.9 (1.9)</td>
<td>1.6 (.21)</td>
</tr>
<tr>
<td>Weighted M</td>
<td>14.0</td>
<td>14.0</td>
<td>13.7</td>
<td>14.0</td>
<td></td>
</tr>
<tr>
<td>Frequency of alcohol use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In the past 12 months, how many</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>days drank?</td>
<td>1.8 (1.4)</td>
<td>1.8 (1.4)</td>
<td>2.1 (2.0)</td>
<td>2.0 (1.5)</td>
<td>1.0 (.36)</td>
</tr>
<tr>
<td>Weighted M</td>
<td>1.9</td>
<td>1.8</td>
<td>2.2</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>In the past 12 months,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>how many days drank?</td>
<td>1.2 (1.3)</td>
<td>1.1 (1.4)</td>
<td>1.5 (1.6)</td>
<td>1.3 (1.5)</td>
<td>1.86</td>
</tr>
<tr>
<td>Weighted M</td>
<td>1.9</td>
<td>1.8</td>
<td>2.2</td>
<td>2.0</td>
<td></td>
</tr>
</tbody>
</table>
Family Support and Parental Monitoring as Protective Factors

<table>
<thead>
<tr>
<th></th>
<th>1.2</th>
<th>1.4</th>
<th>1.4</th>
<th>1.3</th>
<th>(.16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>how many days have you</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gotten drunk?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How many drinks did you</td>
<td>4.3 (3.5)</td>
<td>4.6 (4.2)</td>
<td>5.0 (4.3)</td>
<td>4.7 (4.1)</td>
<td>.03</td>
</tr>
<tr>
<td>have each time?</td>
<td>4.7</td>
<td>4.7</td>
<td>4.8</td>
<td>4.7</td>
<td>(.97)</td>
</tr>
<tr>
<td>Social Problems Related</td>
<td>.23 (.33)</td>
<td>.26 (.42)</td>
<td>.32 (.46)</td>
<td>.28 (.42)</td>
<td>3.9**</td>
</tr>
<tr>
<td>to Alcohol Use</td>
<td>.27</td>
<td>.32</td>
<td>.32</td>
<td>.28</td>
<td>(.02)</td>
</tr>
</tbody>
</table>

Note: Standard Deviation in Parenthesis

*** p<0.01 ** p<0.05

Frequency of Alcohol Use and Alcohol Consumption

Frequency of alcohol use was measured with questions addressing how many days the adolescent drank in the past 12 months and how many days they got drunk in the past 12 months. Response options ranged from 0 to 6 where responses included never, 1 or 2 days in the past 12 months, once a month or less, 2 or 3 days a month, 1 or 2 days a week, 5 days a week and every day or almost every day. Alcohol consumption was measured by how many drinks they had each time they drank.

Of the 875 respondents who reported ever drinking, 15% reported they had not done so in the past 12 months. Of those who consumed alcohol in the past 12 months, the average number of times they drank was 1 or 2 days (28%). Twenty four percent reported drinking once a month or less, 13% reported drinking 2 or 3 days a month, 12% reported drinking 1 or 2 days a week, 4% reported drinking 3 to 5 days a week and 3% reported drinking every day.

Forty percent of the respondents reported never getting drunk in the past 12 months. Among those who got drunk, the average reported number of days drunk was 1 or 2 days which was reported by 29% of the respondents. Twelve percent reported getting drunk once a month, 9% reported getting drunk 2-3 days a month, 7% reported getting drunk 1 or 2 days a week, 2% reported getting drunk 3-5 days a week and 1% reported getting drunk every day. The average
number of drinks reported each time they drank was 4.7. There were no significant generational differences on these variables.

Social Problems Related to Alcohol Use

The occurrence of social problems resulting from alcohol use was measured by a scale that inquired about whether the adolescents experienced problems with their parents, school, friends, someone they were dating, did something they later regretted, engaged in sexual situation they later regretted, or got into a fight because they had been drinking. The scale item responses ranged from 0 to 4 with response options including never, once, twice, 3-4 times or 5 or more times. Of the 720 adolescents who answered these questions, 89% reported that during the past 12 months they had not experienced any social problems as a result of drinking, 10% reported experiencing social problems as a result of drinking once in the past 12 months, and less than 1% percent reported experiencing social problems as a result of drinking two times in the past 12 months. None of the Mexican Americans reported experiencing social problems three or more times as a result of drinking. Significant mean differences on social problems related to drinking were found between generations (see Table 4). Results of the Adjusted Wald F-test indicated significant mean differences between second and third generation Mexican American youth \( F(1, 128)= 6.32, p=0.01 \) on the social problems related to alcohol use scale, with third generation youth experiencing more problems.

Gender Differences in Alcohol Use

Of the adolescents who reported drinking, 52% (n=456) were male and 47% (n=419) were female. A comparison of mean differences of alcohol use between genders revealed that males were significantly more likely to report drinking alcohol compared to females (see Table 5). Significant mean differences \( (p \leq 0.01) \) were also found between genders on all the frequency
Family Support and Parental Monitoring as Protective Factors

of use variables, with males reporting drinking more in the past twelve months than females as well as drinking an average of 1.2 more drinks and getting drunk more often compared to females (see Table 5). No gender difference was found on age of first use of alcohol.

Table 5. Means, Weighted Means and Significance Tests for Alcohol Use Variables by Gender

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male</th>
<th>Female</th>
<th>Adjust Wald F-test (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$ (SD)</td>
<td>$M$ (SD)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Weighted $M$</td>
<td>Weighted $M$</td>
<td></td>
</tr>
<tr>
<td>Alcohol Use</td>
<td>.65 (.47)</td>
<td>.61 (.49)</td>
<td>5.65**</td>
</tr>
<tr>
<td></td>
<td>.67</td>
<td>.60</td>
<td>(.02)</td>
</tr>
<tr>
<td>Age of First Use</td>
<td>13.8 (1.9)</td>
<td>14.0 (1.8)</td>
<td>0.74</td>
</tr>
<tr>
<td></td>
<td>13.8</td>
<td>14.0</td>
<td>(0.4)</td>
</tr>
<tr>
<td>Frequency of Alcohol use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In the past 12 months, how many days did you drink?</td>
<td>2.1 (1.7)</td>
<td>1.7 (.08)</td>
<td>13.7***</td>
</tr>
<tr>
<td></td>
<td>2.2</td>
<td>1.7</td>
<td>(.00)</td>
</tr>
<tr>
<td>How many drinks did you have each time?</td>
<td>5.2 (4.2)</td>
<td>4.3 (3.9)</td>
<td>6.7***</td>
</tr>
<tr>
<td></td>
<td>5.3</td>
<td>4.2</td>
<td>(.01)</td>
</tr>
<tr>
<td>In the past 12 months, how many days have you gotten drunk?</td>
<td>1.6 (1.6)</td>
<td>1.1 (1.3)</td>
<td>13.4***</td>
</tr>
<tr>
<td></td>
<td>1.5</td>
<td>1.0</td>
<td>(.00)</td>
</tr>
<tr>
<td>Social problems related to alcohol use</td>
<td>.32 (.44)</td>
<td>.24 (.41)</td>
<td>6.51**</td>
</tr>
<tr>
<td></td>
<td>.33</td>
<td>.22</td>
<td>(.01)</td>
</tr>
</tbody>
</table>

Note: Standard Deviation in Parenthesis

*** $p$≤0.01 ** $p$≤0.05

In addition to drinking more frequently, males were also more likely to experience social problems as a result of drinking (see Table 5). Comparisons of the individual items on this scale between genders revealed that males were more likely to get into a physical fight as a result of drinking [$F(1, 28) = 14.5, p=.00$]. Exploration by gender and generational status determined that
second generation males were also significantly more likely to experience social problems as a result of drinking compared to third generation males \( [F(1, 128) = 3.75, p = .05] \). No differences in social problems were found among females across generations.

Across generations, first generation males reported a weighted mean alcohol use score of .55, second generation males reported a weighted mean score of .71 and third generation males reported a weighted mean score of .70. Second and third generation males had significantly higher alcohol mean differences \( (p < .05) \) on the Adjusted Wald F-test compared to first generation males. Mean difference results between first and second generation youth were \( [F(1, 128) = 7.70, p = .01] \) and between first and third generation youth were \( [F(1, 128) = 5.61, p = .02] \).

First generation females reported a weighted mean alcohol use score of .50, second generation females reported a weighted mean of .61 and third generation reported a weighted mean score of .63. Third generation females had significantly higher rates of alcohol use compared to first generation females \( [F(1, 128) = 4.0, p = .05] \). Among females, third generation youth were 71% more likely to drink compared to first generation \( (p \leq .05) \).

Multiple Regression Analysis

Multivariate regression models were used to identify the relationship between the independent variables and the dependent variables. For the alcohol use variable, a logistic regression was used to predict the relationship between the independent variable and the dichotomous dependent variable.

Numerous hierarchical regression analyses were conducted to determine which regression models best explained the relationships between the independent variables and the dependent variables. After all the regressions were examined, final regression models were selected based on which models best answered the research questions and offered the highest \( R^2 \).
values. The selected final models are reported in this section (Tables 6 to 10). For all the variables, the first regression models include second generation, third generation, gender (male), age, alcohol use, and socioeconomic status. In order to explore the impact of alcohol use on depression and vice versa, depression and alcohol use are also examined as independent variables in some of the regression models.

The second models incorporated family support and parental monitoring indicators to determine their relationship to the dependent variable and to determine whether their introduction in the model explain the relationship between the independent variables and dependent variable. The mediating variables were introduced in the regressions simultaneously, following a multiple mediator model established by Preacher and Hayes (2008). Furthermore, in order to establish mediation, bivariate correlation analyses were conducted between the independent variables and the mediating variables (Baron & Kenny, 1986). Results of these correlations indicate that all of the family support and parental monitoring indicators were negatively related to depression and alcohol use and that the majority of these relationships were significant (see Appendix C). Significant correlations also existed between the mediators and a number of the independent variables, indicating that mediation is possible (Baron & Kenny, 1986).

Depression

The study hypothesis pertaining to depression were that rates of depression would increase with generational status for both males and females. Overall, being older, second or third generation, female, using alcohol, and having low socioeconomic would result in higher rates of depression. Youth with higher levels of family support and parental monitoring were
expected to have lower levels of depression. Furthermore, higher family support and parental monitoring were predicted to mediate the risk factors for depression.

Model 1 (Table 6) shows several predictors of depression including generational status, gender, age, and alcohol use. Significant correlates of depression in Model 1 include being second generation, being female, being a younger adolescent and using alcohol. Introduction of the family support and parental monitoring variables in Model 2 illustrate a significant inverse relationship between three of the five family support variables and depression, indicating that an increase in family support led to lower levels of depression in this sample. Model 2 (Table 6) explained approximately 32% of the variance in the depression, which represents an $R^2$ increase of 24% from the first model. As Model 2 illustrates, family support served as an important mediator against depression for the youth in this study. In addition to this, with the inclusion of the significant family support variables, alcohol use was no longer a predictor of depression in this model. Specifically, inclusion of the significant indicators of family support including feeling understood by family members, not wanting to leave home, and feeling that family members paid attention to them mediated the relationship between alcohol use and depression. Furthermore, inclusion of the family support variable pertaining to wanting to leave home mediated the relationship between gender and depression. These findings indicate that the increase in rates of depression for females and among youth who use alcohol can be attributed to differences in levels of family support. Despite these important mediations, second generation youth were found to consistently be at increased risk of depression in this study compared to first generation even when levels of family support and parental monitoring were controlled for.
Table 6. Correlates of Depression including Demographic Characteristics, Family Support, Parental Monitoring and Alcohol Use

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Model 1 (N=794)</th>
<th>Model 2 (N=781)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.981***</td>
<td>1.78 ***</td>
</tr>
<tr>
<td></td>
<td>(.133)</td>
<td>(.14)</td>
</tr>
<tr>
<td>Second Generation</td>
<td>.086***</td>
<td>0.80**</td>
</tr>
<tr>
<td></td>
<td>(.030)</td>
<td>(.031)</td>
</tr>
<tr>
<td>Third Generation</td>
<td>.035</td>
<td>.034</td>
</tr>
<tr>
<td></td>
<td>(-.032)</td>
<td>(.028)</td>
</tr>
<tr>
<td>Gender</td>
<td>-.061**</td>
<td>-.038</td>
</tr>
<tr>
<td>(Male)</td>
<td>(.028)</td>
<td>(.022)</td>
</tr>
<tr>
<td>Age</td>
<td>-.018**</td>
<td>-.014**</td>
</tr>
<tr>
<td></td>
<td>(.008)</td>
<td>(.006)</td>
</tr>
<tr>
<td>Alcohol Use</td>
<td>.078***</td>
<td>.009</td>
</tr>
<tr>
<td></td>
<td>(.024)</td>
<td>(.023)</td>
</tr>
<tr>
<td>Had enough money to pay bills</td>
<td>.017</td>
<td>.009</td>
</tr>
<tr>
<td></td>
<td>(.030)</td>
<td>(.026)</td>
</tr>
<tr>
<td>Received Social Security</td>
<td>-.031</td>
<td>-.023</td>
</tr>
<tr>
<td></td>
<td>(.053)</td>
<td>(.044)</td>
</tr>
<tr>
<td>Received SSI</td>
<td>.038</td>
<td>.013</td>
</tr>
<tr>
<td></td>
<td>(.045)</td>
<td>(.046)</td>
</tr>
<tr>
<td>Received AFDC</td>
<td>.072</td>
<td>.124**</td>
</tr>
<tr>
<td></td>
<td>(.084)</td>
<td>(.052)</td>
</tr>
<tr>
<td>Received Food Stamps</td>
<td>-.008</td>
<td>-.035</td>
</tr>
<tr>
<td></td>
<td>(.065)</td>
<td>(.046)</td>
</tr>
<tr>
<td>Received Unemployment</td>
<td>.025</td>
<td>.033</td>
</tr>
<tr>
<td></td>
<td>(.057)</td>
<td>(.046)</td>
</tr>
<tr>
<td>Received Housing Subsidy</td>
<td>.054</td>
<td>.010</td>
</tr>
<tr>
<td></td>
<td>(.082)</td>
<td>(.052)</td>
</tr>
<tr>
<td>Family Support:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents care</td>
<td>-</td>
<td>-.025</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.020)</td>
</tr>
<tr>
<td>Family understands</td>
<td>-</td>
<td>-.057***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.012)</td>
</tr>
<tr>
<td>You want to leave home</td>
<td>-</td>
<td>-.038***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.008)</td>
</tr>
<tr>
<td>You and your family have fun together</td>
<td>-</td>
<td>.012</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.012)</td>
</tr>
<tr>
<td>Your family pays attention to you</td>
<td>-</td>
<td>-.059***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.016)</td>
</tr>
</tbody>
</table>
Family Support and Parental Monitoring as Protective Factors

Parental Monitoring:
Mother is home when you leave for school  -  -.000  
                      ( .006)  
Mother is home when you return from school  -  -.005  
                      ( .007)  
Mother is home when you go to bed  -  -.026  
                      ( .016)  
Days parent present during evening meal  -  -.005  
                      ( .007)  

\[ R^2 \] 0.0711 0.3175
\[ \Delta R^2 \] 0.2464

Note: Standard Error in Parenthesis

*** p<0.01 ** p<0.05

No significant relationship was found between a family’s reported ability to pay their bills and levels of depression in the adolescent. However, adolescents whose families received AFDC benefits were more likely to experience depression when family support and parental monitoring variables were statistically the same (Model 2, Table 6).

Despite the strong correlation between depression and many of the parental monitoring variables (see Appendix C), no significant relationship was found between parental monitoring and depression in any of the regression models. These findings suggest that family support may play a more instrumental role in alleviating depression than parental monitoring when demographic variables and alcohol use are also controlled for.

Alcohol Use

The study hypotheses pertaining to alcohol use were that being older, second or third generation, male, and having low socioeconomic status would be correlated with higher levels of alcohol use. Depression was also expected to be a predictor of alcohol use. Youth with higher levels of family support and parental monitoring were expected to have lower rates of alcohol
Family Support and Parental Monitoring as Protective Factors

use. Furthermore, family support and parental monitoring were hypothesized to mediate the risk factors for alcohol use.

Logistic regression results and odds ratios are provided for whether the adolescent reported using alcohol (see Table 7). In Model 1, gender and depression were found to be significant predictors of alcohol use while generational status did not affect the odds of alcohol use significantly. Overall, males were at significantly higher risk of alcohol use in both the regression models. Adolescent males were 64% more likely to report use of alcohol compared to females and 77% more likely to use alcohol when family support and parental monitoring variables were controlled for (Model 2). Contrary to what was expected, family support and parental monitoring did not counteract the relationship between gender and propensity for alcohol use.

As was hypothesized, depression was also a significant predictor of alcohol use in Model 1. Youth with higher rates of depression were found to be twice as likely to use alcohol. However, family support, mainly feeling understood by their family and not wanting to leave home, proved to be an important mediator in the relationship between depression and alcohol use for adolescents with higher rates of depression (Model 2).

Of the family support variables, feeling understood by their family and not wanting to leave home significantly reduced alcohol use in this sample. Teens who reported feeling understood by their families were 68% less likely to report use of alcohol and youth who reported not wanting to leave home were 74% less likely to report use of alcohol. Maternal presence when the adolescent returned from school was the only parental monitoring variable that was a significant predictor of alcohol use. Adolescents whose mother was home when they
Family Support and Parental Monitoring as Protective Factors

returned from school were 79% less likely to report alcohol use than those whose mothers were never home.

Results on generational status and alcohol use showed that second and third generation youth with similar levels of family support and parental monitoring were twice as likely to use alcohol compared to first generation youth (Model 2). This finding indicates that when rates of family support are statistically the same, second and third generation adolescents have a higher propensity toward alcohol consumption compared to first generation.

Table 7. Correlates and Odds Ratios of Alcohol Use including Demographic Characteristics, Family Support, Parental Monitoring and Depression

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Alcohol Use</th>
<th>Odds Ratios</th>
<th>Alcohol Use</th>
<th>Odds Ratios</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td></td>
<td>(N=794)</td>
<td>(N=781)</td>
<td>(N=794)</td>
<td>(N=781)</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.39**</td>
<td>.928</td>
<td>-2.39**</td>
<td>.928</td>
</tr>
<tr>
<td></td>
<td>(.960)</td>
<td>(1.84)</td>
<td>(.960)</td>
<td>(1.84)</td>
</tr>
<tr>
<td>Second Generation</td>
<td>.339</td>
<td>1.40</td>
<td>.698**</td>
<td>2.01**</td>
</tr>
<tr>
<td></td>
<td>(.264)</td>
<td>(.371)</td>
<td>(.276)</td>
<td>(.555)</td>
</tr>
<tr>
<td>Third Generation</td>
<td>.462</td>
<td>1.58</td>
<td>.737***</td>
<td>2.09***</td>
</tr>
<tr>
<td></td>
<td>(.267)</td>
<td>(.424)</td>
<td>(.278)</td>
<td>(.582)</td>
</tr>
<tr>
<td>Gender (Male)</td>
<td>.499**</td>
<td>1.64**</td>
<td>.574**</td>
<td>1.77**</td>
</tr>
<tr>
<td></td>
<td>(.205)</td>
<td>(.339)</td>
<td>(.230)</td>
<td>(.409)</td>
</tr>
<tr>
<td>Age</td>
<td>.096</td>
<td>1.10</td>
<td>.086</td>
<td>1.09</td>
</tr>
<tr>
<td></td>
<td>(.053)</td>
<td>(.059)</td>
<td>(.063)</td>
<td>(.068)</td>
</tr>
<tr>
<td>Depression</td>
<td>.771***</td>
<td>2.16***</td>
<td>.045</td>
<td>1.04</td>
</tr>
<tr>
<td></td>
<td>(.264)</td>
<td>(.571)</td>
<td>(.322)</td>
<td>(.338)</td>
</tr>
<tr>
<td>Had enough money to pay bills</td>
<td>.274</td>
<td>1.31</td>
<td>.200</td>
<td>1.22</td>
</tr>
<tr>
<td></td>
<td>(.276)</td>
<td>(.363)</td>
<td>(.298)</td>
<td>(.364)</td>
</tr>
<tr>
<td>Received Social Security</td>
<td>.044</td>
<td>1.04</td>
<td>.188</td>
<td>1.20</td>
</tr>
<tr>
<td></td>
<td>(.332)</td>
<td>(.347)</td>
<td>(.366)</td>
<td>(.442)</td>
</tr>
<tr>
<td>Received SSI</td>
<td>.341</td>
<td>1.40</td>
<td>.539</td>
<td>1.71</td>
</tr>
<tr>
<td></td>
<td>(.386)</td>
<td>(.544)</td>
<td>(.413)</td>
<td>(.709)</td>
</tr>
<tr>
<td>Received AFDC</td>
<td>-.395</td>
<td>.673</td>
<td>-.347</td>
<td>.706</td>
</tr>
<tr>
<td></td>
<td>(.658)</td>
<td>(.443)</td>
<td>(.657)</td>
<td>(.464)</td>
</tr>
<tr>
<td>Received Food Stamps</td>
<td>-.088</td>
<td>.915</td>
<td>.102</td>
<td>1.10</td>
</tr>
<tr>
<td></td>
<td>(.550)</td>
<td>(.503)</td>
<td>(.580)</td>
<td>(.643)</td>
</tr>
<tr>
<td>Received Unemployment</td>
<td>-.028</td>
<td>.971</td>
<td>-.015</td>
<td>.984</td>
</tr>
</tbody>
</table>
Family Support and Parental Monitoring as Protective Factors

<table>
<thead>
<tr>
<th></th>
<th>(0.449)</th>
<th>(0.437)</th>
<th>(0.507)</th>
<th>(0.499)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received Housing Subsidy</td>
<td>.153</td>
<td>1.16</td>
<td>.274</td>
<td>1.31</td>
</tr>
<tr>
<td></td>
<td>(0.783)</td>
<td>(0.912)</td>
<td>(0.820)</td>
<td>(1.07)</td>
</tr>
</tbody>
</table>

Family Support:

Parents care:  -  -  .401  1.49
              |         |         | (.234) | (.350)  
Family understands:  -  -  -0.379***  0.684***
                      |         |         | (.136) | (.093)  
You want to leave home:  -  -  -2.94**  0.744**
                          |         |         | (.118) | (.088)  
You and your family have fun:  -  -  -0.154  0.856
                               |         |         | (.161) | (.138)  
Your family pays attention to you:  -  -  0.026  1.02
                                     |         |         | (.162) | (.166)  

Parental Monitoring:

Mother is home when you leave for school:  -  -  -0.012  0.987
                                             |         |         | (.071) | (.070)  
Mother is home when you return from school:  -  -  -2.23***  0.799***
                                                   |         |         | (.072) | (.058)  
Mother is home when you go to bed:  -  -  -0.207  0.812
                                           |         |         | (.159) | (.129)  
Days parent present during evening meal:  -  -  -0.007  0.992
                                          |         |         | (.080) | (.080)  

Note: Standard Error in parenthesis

*** p<0.01 ** p<0.05

Frequency of Alcohol Use

Hypotheses for frequency of alcohol use among the Mexican Americans in this study were that older, second and third generation, male adolescents, and those who began drinking at an early age and who had low socioeconomic status would use alcohol more frequently, consume more alcohol, and become drunk on more days. Youth with higher levels of depression were also expected to drink more frequently, consume more alcohol and become intoxicated on more days.
Family Support and Parental Monitoring as Protective Factors

Family support and parental monitoring factors were hypothesized to reduce frequency of alcohol use and to mediate the relationship between depression and frequent drinking.

*During the past 12 months on how many days did you drink alcohol?*

Gender, depression and receipt of SSI were significant predictors of the number of days the adolescent drank in the past year (see Table 8). As Model 1 indicates, males were likely to consume alcohol on more days in the past 12 months compared to females. Furthermore, adolescents who reported higher levels of depression also reported drinking significantly more days in the past year. In addition to this, receiving or having a family member who received SSI also significantly increased how many drinks the adolescent had in the past year.

Table 8. Correlates of Frequency of Alcohol Use including Demographic Characteristics, Family Support, Parental Monitoring and Depression

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>During the past 12 months on how many days did you drink alcohol?</th>
<th>How many drinks did you usually have each time?</th>
<th>Over the past 12 months, on how many days have you gotten drunk or “very, very high” on alcohol?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.081 (1.24)</td>
<td>1.35 (1.72)</td>
<td>1.12 (.825)</td>
</tr>
<tr>
<td>Second Generation</td>
<td>-.333 (.302)</td>
<td>-.401 (.333)</td>
<td>-.089 (.142)</td>
</tr>
<tr>
<td>Third Generation</td>
<td>.093 (.246)</td>
<td>.038 (.243)</td>
<td>-.115 (.153)</td>
</tr>
<tr>
<td>Gender</td>
<td>.908*** (.172)</td>
<td>1.01*** (.188)</td>
<td>.273 (.143)</td>
</tr>
<tr>
<td>Age</td>
<td>.091 (.056)</td>
<td>.063 (.053)</td>
<td>.058 (.030)</td>
</tr>
<tr>
<td>Age of First Use</td>
<td>-.014 (.043)</td>
<td>.040 (.043)</td>
<td>-.049 (.037)</td>
</tr>
<tr>
<td>Depression</td>
<td>.783*** (.221)</td>
<td>.358 (.227)</td>
<td>.055 (.130)</td>
</tr>
<tr>
<td>Had enough money to pay bills</td>
<td>.014 (.250)</td>
<td>.101 (.239)</td>
<td>-.143 (.129)</td>
</tr>
</tbody>
</table>
### Family Support and Parental Monitoring as Protective Factors

<table>
<thead>
<tr>
<th>Received Social Security</th>
<th>Received SSI</th>
<th>Received AFDC</th>
<th>Received Food Stamps</th>
<th>Received Unemployment</th>
<th>Received Housing Subsidy</th>
</tr>
</thead>
<tbody>
<tr>
<td>-.128</td>
<td>- .109**</td>
<td>206 (.495)</td>
<td>-.488 (.306)</td>
<td>-.049 (.561)</td>
<td>.218 (.400)</td>
</tr>
<tr>
<td>(.342)</td>
<td>(.550)</td>
<td>(.487)</td>
<td>(.315)</td>
<td>(.506)</td>
<td>(.400)</td>
</tr>
<tr>
<td>-.297</td>
<td>.525</td>
<td>-.029</td>
<td>-.379</td>
<td>-.240</td>
<td>.145</td>
</tr>
<tr>
<td>(.203)</td>
<td>(.277)</td>
<td>(.094)</td>
<td>(.327)</td>
<td>(.210)</td>
<td>(.220)</td>
</tr>
<tr>
<td>-.215</td>
<td>.399</td>
<td>.132</td>
<td>.397</td>
<td>.269</td>
<td>(.126)</td>
</tr>
<tr>
<td>(.179)</td>
<td>(.280)</td>
<td>(.293)</td>
<td>(.293)</td>
<td>(.256)</td>
<td>(.126)</td>
</tr>
<tr>
<td>-.012</td>
<td>.508**</td>
<td>(.211)</td>
<td>.008</td>
<td>(.293)</td>
<td>(.256)</td>
</tr>
<tr>
<td>(.214)</td>
<td>(.224)</td>
<td>(.211)</td>
<td>(.208)</td>
<td>(.256)</td>
<td>(.190)</td>
</tr>
<tr>
<td>.037</td>
<td>.440</td>
<td>(.259)</td>
<td>(.059)</td>
<td>(.292)</td>
<td>.018</td>
</tr>
</tbody>
</table>

### Family Support:

**Parents care**

| -.245                    | - .089      | - .018        | - .074               | - .017               | - .053                  |
| (.190)                   | (.097)      | (.114)        | (.074)               | (.097)               | (.082)                  |

**Family understands**

| -.030                    | - .017      | - .012        | - .030               | - .017               | - .016                  |
| (.090)                   | (.050)      | (.043)        | (.090)               | (.050)               | (.049)                  |

**You want to leave home**

| -.125                    | .053        | - .012        | .053                 | - .012               | .053                   |
| (.121)                   | (.080)      | (.043)        | (.121)               | (.080)               | (.070)                  |

**You and your family have fun**

| -.503***                 | - .198      | - .012        | -.503***             | - .198               | - .139                  |
| (.170)                   | (.113)      | (.043)        | (.170)               | (.113)               | (.093)                  |

### Parental Monitoring

**Mother is home when you leave school**

| -.203                    | - .241**    | - .203        | -.241**              | - .203               | -.203                  |
| (.105)                   | (.094)      | (.105)        | (.094)               | (.105)               | (.105)                 |

**Mother is home when you return from school**

| -.047                    | - .016      | - .016        | -.047                | - .016               | -.047                  |
| (.067)                   | (.043)      | (.043)        | (.067)               | (.043)               | (.043)                 |

**Mother is home when you go to bed**

| -.027                    | -.027       | -.027         | -.027                | -.027                | -.027                  |
| (.067)                   | (.041)      | (.041)        | (.067)               | (.041)               | (.041)                 |

| \( R^2 \) | 0.166 | 0.236 | 0.131 | 0.237 | 0.142 | 0.232 |
| \( \Delta R^2 \) | 0.07 | 0.106 | 0.142 | 0.232 | 0.09 | 0.232 |

Note: Standard Error in parenthesis
Model 2 (Table 8) illustrates the role of family support in preventing increased drinking for Mexican Americans. Among the family support variables, feeling that their family pays attention was a significant factor in preventing increased drinking and in mediating the relationship between depression and the number of days the adolescent drank. While none of the parental monitoring variables were significant at the p≤0.05 level, the introduction of maternal presence before bed, which was significant at the p≤0.06 level, appeared to mediate the impact of receiving SSI on depression as these variables are significantly correlated (see Appendix C). These family support and parental monitoring variables did not explain the relationship between gender and alcohol use frequency as males continued to drink on significantly more days than females even when family support and parental monitoring were controlled for. The second and final model pertaining to number of days drank in the past year had an R² increase of only 7% compared to the first model and explained approximately 24% of the variance in adolescent drinking in the past 12 months.

*How many drinks did you usually have each time?*

While there was no statistically significant difference between gender and number of drinks each time they drank when the demographic variables and depression were controlled for, males with similar levels of family support and parental monitoring consumed significantly more drinks each time they drank compared to females (Model 2). This finding indicates that when rates of family support are statistically the same, males have a higher propensity toward increased alcohol consumption compared to females. Model 2 pertaining to how many drinks the adolescent had each time explained 24% of the variance in this frequency of use variable and shows an R² increase of 11% compared to the first model. Meanwhile, parental monitoring such
as maternal presence before bed was found to significantly reduce how many drinks the youth consumed. Socioeconomic status, receipt of public benefits, levels of depression, age of first use or age did not significantly impact how many drinks the adolescent drank each time.

Over the past 12 months, on how many days have you gotten drunk or “very, very high” on alcohol?

Gender, age of first use, and receipt of SSI were all found to be significant predictors of how many days the adolescent got drunk in the past year (Model 1, Table 8). As with the other frequency of use variables, males were found to become drunk significantly more often than females. In addition to this, postponing use of alcohol until a later age protected adolescents from becoming drunk on more days. For each unit increase in age of first use of alcohol, reported days drunk decreased by .05. Exploration of receipt of public benefits indicated that receiving or having a family member who received SSI was significantly related to being drunk on more days and increased the number of days drunk by .50. The final model (Model 2) explains 23% of the variance in number of days drunk for the adolescents in this study, an increase of 9% from the first model. While none of the family support variables introduced were significantly related to getting drunk in the past year, the parental monitoring variable of maternal presence before bed was once again significantly related with frequency of alcohol use. With the inclusion of the family support and parental monitoring variables, males continued to be at significantly higher risk of becoming intoxicated compared to females. Additionally, drinking alcohol at a later age continued to decrease the risk of becoming drunk often. Parental monitoring, specifically maternal presence before bed, mediated the risk of getting drunk on more days.

In accordance with the hypotheses, males were consistently found to have a higher frequency of alcohol use compared to females in this study. This was the case even when family
Family Support and Parental Monitoring as Protective Factors

support and parental monitoring variables were held constant, indicating that these protective factors did not have a mediating effect on the relationship between gender and frequency of alcohol use. Among the socioeconomic status variables, a family’s reported ability to pay their bills did not impact the adolescent’s frequency of alcohol use. For families that received public benefits, the receipt of social security, AFDC benefits, unemployment, or housing subsidies did not significantly impact frequency of alcohol use. Receipt of SSI benefits, however, was significantly related to drinking on more days and being drunk on more days in the past year. Furthermore, of the protective factors, feeling that family members paid attention to them was the only family support variable that decreased frequency of alcohol use. Arguably, this variable can also be considered an indicator of parental monitoring as it was significantly correlated to maternal presence after school and number of days a parent was present during evening meals. Among the parental monitoring variables, maternal presence before the adolescent went to bed was found to be an important predictor of how much the adolescent drank and how often they became intoxicated.

Social Problems Related to Alcohol Use

Older, second and third generation youth, males, adolescents who consumed alcohol at an early age and youth whose families had lower socioeconomic status were hypothesized to have more alcohol-related social problems (see Table 9). Depression was also expected to be positively correlated with experiencing social problems as a result of drinking. Family support and parental monitoring factors were hypothesized to reduce social problems caused by drinking and to serve as mediators in the relationship between the risk factors and the occurrence of social problems resulting from alcohol use.
# Table 9. Correlates of Social Problems Related to Alcohol Use including Demographic Characteristics, Family Support, Parental Monitoring and Depression

<table>
<thead>
<tr>
<th>Social Problems Related to Alcohol Use</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variable</td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>Constant</td>
<td>.915**</td>
<td>1.42***</td>
</tr>
<tr>
<td></td>
<td>(.458)</td>
<td>(.48)</td>
</tr>
<tr>
<td>Second Generation</td>
<td>.012</td>
<td>.030</td>
</tr>
<tr>
<td></td>
<td>(.072)</td>
<td>(.076)</td>
</tr>
<tr>
<td>Third Generation</td>
<td>-.005</td>
<td>.051</td>
</tr>
<tr>
<td></td>
<td>(.066)</td>
<td>(.062)</td>
</tr>
<tr>
<td>Gender</td>
<td>.061</td>
<td>.075</td>
</tr>
<tr>
<td></td>
<td>(.064)</td>
<td>(.066)</td>
</tr>
<tr>
<td>Age</td>
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<td>.001</td>
</tr>
<tr>
<td></td>
<td>(.019)</td>
<td>(.019)</td>
</tr>
<tr>
<td>Age of First Use</td>
<td>-.047***</td>
<td>-.042***</td>
</tr>
<tr>
<td></td>
<td>(.016)</td>
<td>(.015)</td>
</tr>
<tr>
<td>Depression</td>
<td>.154**</td>
<td>.089</td>
</tr>
<tr>
<td></td>
<td>(.062)</td>
<td>(.086)</td>
</tr>
<tr>
<td>Had enough money to pay bills</td>
<td>.011</td>
<td>.041</td>
</tr>
<tr>
<td></td>
<td>(.066)</td>
<td>(.067)</td>
</tr>
<tr>
<td>Received Social Security</td>
<td>.137</td>
<td>.138</td>
</tr>
<tr>
<td></td>
<td>(.122)</td>
<td>(.115)</td>
</tr>
<tr>
<td>Received SSI</td>
<td>-.116</td>
<td>-.129</td>
</tr>
<tr>
<td></td>
<td>(.162)</td>
<td>(.142)</td>
</tr>
<tr>
<td>Received AFDC</td>
<td>.090</td>
<td>.116</td>
</tr>
<tr>
<td></td>
<td>(.162)</td>
<td>(.156)</td>
</tr>
<tr>
<td>Received Food Stamps</td>
<td>-.047</td>
<td>-.081</td>
</tr>
<tr>
<td></td>
<td>(.097)</td>
<td>(.11)</td>
</tr>
<tr>
<td>Received Unemployment?</td>
<td>-.162</td>
<td>-.304***</td>
</tr>
<tr>
<td></td>
<td>(.159)</td>
<td>(.134)</td>
</tr>
<tr>
<td>Received Housing Subsidy</td>
<td>.347**</td>
<td>.407**</td>
</tr>
<tr>
<td></td>
<td>(.151)</td>
<td>(.160)</td>
</tr>
<tr>
<td>Family Support:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents care</td>
<td>-</td>
<td>.018</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.048)</td>
</tr>
<tr>
<td>Family understands</td>
<td>-</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.034)</td>
</tr>
<tr>
<td>You want to leave home</td>
<td>-</td>
<td>.0328</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.029)</td>
</tr>
<tr>
<td>You and your family have fun</td>
<td>-</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.034)</td>
</tr>
<tr>
<td>Your family pays attention to you</td>
<td>-</td>
<td>-.088**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.045)</td>
</tr>
</tbody>
</table>
Family Support and Parental Monitoring as Protective Factors

<table>
<thead>
<tr>
<th>Parental Monitoring:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother is home when you leave for school</td>
<td>-.003</td>
</tr>
<tr>
<td></td>
<td>(.019)</td>
</tr>
<tr>
<td>Mother is home when you return from school</td>
<td>.031</td>
</tr>
<tr>
<td></td>
<td>(.019)</td>
</tr>
<tr>
<td>Mother is home when you go to bed</td>
<td>-.126***</td>
</tr>
<tr>
<td></td>
<td>(.023)</td>
</tr>
<tr>
<td>Days parent present during evening meal</td>
<td>-.003</td>
</tr>
<tr>
<td></td>
<td>(.018)</td>
</tr>
</tbody>
</table>

\[ R^2 \] 0.106 \[ \Delta R^2 \] .0996

Note: Standard Error in parenthesis

*** p<0.01 ** p<0.05

Depression, age of first use of alcohol, and having a family member who received a housing subsidy were significant predictors of experiencing social problems related to alcohol use (Model 1). However, when family support and parental monitoring variables were statistically the same, depression was no longer a predictor of experiencing alcohol-related social problems (Model 2, Table 9). This same pattern was found for depression and the number of days of alcohol use in the past month (see Table 8). Overall, feeling that family members paid attention to them and having maternal presence before bed also mediated the risk of experiencing social problems as a result of drinking.

Youth who reported drinking at an older age were less likely to experience social problems as a result of drinking in both Models 1 and 2 (Table 9). For each unit in age of first use, social problems decreased by .05 and .04 units respectively. Despite what was hypothesized, the adolescent’s age at the time of the study did not impact the likelihood of having alcohol-related social problems.

Adolescents whose family received a housing subsidy (Models 1 and 2) were more likely to have experienced social problems from drinking. Even when the protective factors were
Family Support and Parental Monitoring as Protective Factors

controlled for, social problems increased for those adolescents whose families received a housing subsidy. Conversely, adolescents whose rates of family support and parental monitoring were statistically the same but whose families received unemployment experienced a decrease in alcohol-related social problems. The latter finding could possibly be attributed to an overall increase in parental monitoring following the parent’s loss of employment for these particular adolescents.

Summary of Study Results

This study identified several predictors and protective factors which buffer against depression and alcohol use for the Mexican American participants of the ADD Health research. These study results are discussed more in-depth in the following chapter. Overall, generational status was found to impact both depression and alcohol use in this study as second and third generation youth with similar levels of family support were more likely to report using alcohol compared to first generation youth. Gender was found to be another significant predictor as females were determined to be at higher risk of depression while males were found to be at increased risk of alcohol use and frequent drinking. Being of younger age was significantly related to depression while age of first use of alcohol was significantly related to becoming intoxicated and experiencing social problems from drinking.

Receipt of public benefits was identified as a risk factor for depression and alcohol use. Receipt of AFDC benefits was significantly related to depression among youth with similar levels of family support and parental monitoring. Among adolescent drinkers, those who received or who had a family member who received SSI were more likely to report drinking on more days and getting drunk more often while those who received a housing subsidy were at
increased likelihood of experiencing social problems from drinking. Conversely, having a family member who received unemployment decreased the chances of experiencing these problems.

For Mexican American youth, aspects of family support mediated the impact of alcohol use and gender on depression as well as the impact of depression in use of alcohol. Aspects of family support and parental monitoring also served as protective factors in frequency of alcohol use. Characteristics of family support including feeling understood by family members, not wanting to leave home and aspects of parental monitoring including maternal presence upon return from school all reduced likelihood of drinking for the youth in this study. These variables also served as mediators in the relationship between depression and alcohol use. Aspects of family support including feeling that parents paid attention to them and parental monitoring in the form of maternal presence before bed were found to prevent social problems related to drinking. These factors were also important mediators in the relationship between adolescent depression and the likelihood of experiencing social problems related to drinking.
DISCUSSION AND IMPLICATIONS OF THE FINDINGS

This study was a secondary analysis of data from the first wave of the ADD Health longitudinal study on adolescents. The purpose of the study was to gain information about depression and alcohol use and to explore the role of family support and parental monitoring in preventing depression and alcohol use in the Mexican American adolescents who participated in this 1994-1995 study. The findings in this study contribute to an understanding of how family support and parental monitoring affect levels of depression and alcohol use among Mexican Americans. The study also explored frequency of alcohol use and the likelihood of experiencing social problems from drinking and considered important within group differences such as generational status, gender, socioeconomic status, and age.

Depression

Depression was measured by a feelings scale that looked at symptoms of depression. Overall, Mexican Americans in this sample reported low levels of depression with the majority of adolescents never or rarely experiencing symptoms of depression. Recent studies on prevalence of depression among adolescents in the U.S. found that approximately 8% of adolescents experienced an episode of Major Depression in the prior year (Substance Abuse and Mental Health Services Administration, 2008). The majority (80%) of Mexican Americans in this study reported rarely or never feeling depressed while less than 1% reported feeling symptoms of depression a lot of the time, indicating that depression rates among the youth in this study were low compared to national averages. It is important to note however, that the latter rates captured the current number of adolescents diagnosed with depression or mood disorders
Family Support and Parental Monitoring as Protective Factors

while the study examined in this dissertation looked at the presence of depressive symptoms at the time the data was collected.

*Alcohol Use*

A significant relationship between alcohol use and depression was expected and confirmed in this study. Adolescents who used alcohol were significantly more likely to report higher levels of depression. Several prior studies also found a strong correlation between symptoms of depression and alcohol use in Latino youth (Swanson et al., 1992; Desimone, 1996).

*Generational Status*

The information in the literature lends support to both arguments about why either foreign born or native-born youth could be more at risk for depression. Acculturative stress, which is higher among first generation youth, (Mena et al., 1987; Romero & Roberts, 2003) was established as a risk factor for depression and suicidal ideation (Hovey & King, 1996) in Mexican American youth. To the contrary, being foreign born was determined to be a protective factor against depression in other studies of Mexican Americans (Escobar et al., 2001; Harris, 2000).

The findings in this study coincide with those obtained in other ADD Health studies on depression between generations (Harker, 2001), indicating that being foreign born is related to lower levels of depression for Mexican American youth. Second generation youth were found to be most at risk of experiencing symptoms of depression, while first generation youth had significantly lower levels of depression compared to second and third generation youth. These findings suggest that with increased adaptation to U.S. values and norms, Mexican Americans become more vulnerable to depression.
Family Support and Parental Monitoring as Protective Factors

**Gender**

As was hypothesized, being an adolescent girl was a significant predictor of depression among the Mexican Americans in this study. This finding was consistent with prior research on this population (Hovey & King, 1996; Roberts, Roberts & Chen, 1997; Swanson et al., 1992; Lewinsohn et al., 1994). Depression was higher for females relative to males across generations and was highest for females of second generation. The lowest levels of depression were found among first generation Mexican American males, followed by third generation males.

**Socioeconomic Status**

Low socioeconomic status was hypothesized to lead to increased rates of depression due to the stressors that are often associated with living in poverty and having lower financial resources. These factors were found to be predictors of depression in prior studies (Riolo et. al, 2005). It was also expected that first generation youth would have lower socioeconomic status due to their immigrant status and their shorter length of residency in the United States. There was no significant relationship between a family’s ability to pay their bills and adolescent depression in this study. These findings mirror those obtained by Hovey and King (1996) and Roberts and Chen (1995). Consequently, families of first generation youth reported an ability to pay their bills that was equal to families of third generation youth. An exploration of public benefits and depression revealed that youth with similar levels of family support and parental monitoring were more likely to experience higher levels of depression if their families received AFDC benefits.

**Age**

Given the strong correlation between depression and alcohol use, it was hypothesized that older adolescents would be more likely to drink alcohol (Substance Abuse and Mental Health
Family Support and Parental Monitoring as Protective Factors

Services Administration, 2008) and in turn, would also be at higher risk for depression. The findings in this study determined that in fact, older adolescents were at decreased risk of depression.

*Family Support and Depression*

The literature has found family support and parental monitoring to be critical factors in adolescent mental health development (Garrison et al., 1997). Characteristics of Latino family values including the importance of family support, cohesion, and parental warmth (Gil-Rivas et al., 2003) have been associated with enhanced mental health outcomes for Mexican American youth. Positive interactions between parents and children also counteracted risk factors for internalizing disorders such as depression (Edward & Lopez, 2006; Driscoll et al., 2008).

The findings in this study support the literature as well as many of this study’s primary hypotheses about the protective impact of family support on preventing depression. Family support proved to be an important mediator in the impact of alcohol use on depression for the Mexican American teens in this study. Aspects of family support, specifically feeling understood, not wanting to leave home, and feeling that family members paid attention to them, reduced the risk of depression among adolescent drinkers. Another key finding of this study was that females of all generations were at increased risk of depression compared to males. However, higher levels of family support particularly feeling understood by family members, mediated this risk.

*Parental Monitoring and Depression*

While few studies have explored the impact of parental supervision and monitoring on Mexican American mental health outcomes, prior research in Mexico City found that greater parental monitoring was associated with lower levels of depressive symptoms (Gil-Rivas et al.,
Family Support and Parental Monitoring as Protective Factors

2003). U.S. studies have also found that parental supervision contributes to lower levels of depression in immigrant youth (Harker, 2001). In this study, all of the parental monitoring variables were negatively related to depression. Conversely none of them were significant predictors of depression levels when demographic variables were also controlled for. These findings indicate that parental monitoring may play a secondary role to family support in alleviating depressive symptoms for Mexican Americans.

Alcohol Use

The majority, 62% of Mexican Americans in this study, reported drinking alcohol at least 2-3 times in their life. Similar to other studies on the prevalence of alcohol use by Mexican Americans, these findings suggest that Mexican American youth may be more likely to report drinking compared to non-Mexicans (Delva et al., 2005; Swaim et al., 2004). However, these comparisons require further exploration. National reports on alcohol use estimate that 15% of Hispanics between 12 and 17 years of age used alcohol in the past month and 35% of young adults used alcohol by age 20 (Substance Abuse and Mental Health Services Administration, 2008). Disparities between national averages and the rates presented in this study may be due to differences in defining alcohol use.

Depression

Youth with higher levels of depression were significantly more likely to report use of alcohol. In addition to increasing the chances of drinking, higher levels of depression also contributed to an increase in the number of days the adolescent drank. Increased depression also elevated the odds of experiencing social problems as a result of drinking. These findings indicate that for this sample, alcohol use may have been used as a method to cope with feelings of depression. This is consistent with other researchers who found Mexican American adolescents
Family Support and Parental Monitoring as Protective Factors

at risk of turning to alcohol use as a means of managing emotional distress (Tschann et al., 2005) and alleviating pressure (Boles et al., 1994).

Generational Status

Despite the many stressors that often accompany migration to a new country; the findings in this study indicated that Mexican American youth were in fact more at risk for alcohol consumption with increased generational status. Significant mean differences were found in use of alcohol with U.S. born adolescents having higher rates of drinking compared to first generation youth. Similar findings were obtained in previous studies that explored generational differences in drinking (Gil, Wagner & Vega, 2000; Cavanagh, 2007).

While the final regression analysis did not find a significant relationship in social problems related to drinking by generational status when other variables were controlled for, bivariate analysis and exploration of mean differences indicated that third generation youth were significantly more likely to experience social problems due to drinking compared to second generation (See table 5). These findings support the literature findings that suggest there are aspects of being foreign born that protect first generation Mexican American adolescents from drinking (Cavanagh, 2007) and from engaging in risky behaviors (Harris, 2000).

Gender

Exploration of the data consistently determined that adolescent boys were at greater risk of using alcohol compared to girls whether or not they experienced high levels of family support and parental monitoring. Males were also found to have a higher frequency of alcohol use and were significantly more likely to get into a physical fight as a result of drinking. These findings implicate the need to further understand the causes of alcohol use among adolescent males and to identify protective factors that mitigate alcohol use in this population.
Family Support and Parental Monitoring as Protective Factors

Socioeconomic Status

The importance of acquiring further information about socioeconomic status and teenage drinking was noted in the literature. Boles et al., (1994) also determined that there was no significance between socioeconomic status and alcohol use conversely, one study found that poverty was a significant risk factor for alcohol use among Latinos (Pumariega et al., 1992). The hypothesis of this study was such that stressors related to low socioeconomic status would lead to increased use of alcohol as a means of coping. Overall, the ability for family members to pay their bills and the receipt of public benefits had no impact on whether or not the adolescent drank. One major reason for the differences in these results could be differences in the way that socioeconomic status is being measured.

For the adolescents who consumed alcohol, receiving or having a family member who received SSI placed them at significant risk of drinking frequently. The data does not distinguish whether it is the adolescent or a parent who receives SSI or not. If it is the youth who receives SSI, he or she may use alcohol as a means of coping or as a form of self-medication to alleviate stress caused by conditions for which SSI was received. Such conditions could also potentially include parental substance abuse. An important mediator between receipt of SSI and alcohol use was noted as adolescents who felt supported by family members who paid attention to them were protected from drinking on more days. Regardless of family support and parental monitoring, teens whose families received a housing subsidy, were found to be at increased risk of having social problems as a result of drinking, suggesting that residing in low income housing developments may contribute to alcohol use. Conversely, having a family member who received unemployment decreased the chances of experiencing alcohol-related social problems.
Family Support and Parental Monitoring as Protective Factors

Age

No relationship was found between age and adolescent drinking including frequency of use or likelihood of experiencing social problems from drinking. Nonetheless, teens that started to drink alcohol at a later age were found to get drunk less often and to encounter fewer social problems as a result of drinking.

Family Support and Alcohol Use

Aspects of family support including parental warmth were previously found to decrease alcohol use among Latino youth (Mogro-Wilson, 2008). Other research on alcohol consumption by teens revealed that family support both suppressed alcohol consumption (Duncan et al., 1994; Sale et al., 2005) and influenced an adolescent’s decisions to initiate substance use more than peer influences (Coombs et al., 1991; Marsiglia et al., 2002). Consistent with the literature, the results in this study indicate that aspects of family support, specifically higher rates of feeling understood by family members and not wanting to leave home, prevented alcohol use for this Mexican American sample.

Levels of family support did not vary significantly by generational status as originally predicted. This outcome is similar to that obtained by Sabogal et al., (1987) who found that perceived family support remained constant with increased acculturation. Consequently, differences in levels of family support did not explain the risk of increased generational status on alcohol use for the youth in this study.

Family support was found to reduce some of the risks of drinking. For the adolescents in this study, feeling cared for and understood by family members and not wanting to leave home served as a deterrent of alcohol use for youth with higher rates of depression. Among drinkers who reported higher levels of depression, feeling that family members paid attention to them
Family Support and Parental Monitoring as Protective Factors

served as a protective factor by decreasing how many days they drank. While the family’s receipt of SSI was considered a risk factor for frequent alcohol use, feeling attended to by family members mediated this risk.

*Parental Monitoring and Alcohol Use*

Several studies on the role of parental monitoring have reported that increased parental supervision may shield Mexican American adolescents from alcohol use (Driscoll et al., 2008; Guo, 2001; Mogro-Wilson, 2008). Parental monitoring was expected to have a significant impact on alcohol use in this study. It was also expected that parental monitoring would be highest for first generation youth whose parents were more likely to practice traditional Latino parenting practices that include limiting independence and closely monitoring their children (Guilamo-Ramos et al., 2007; Bulcroft et al., 1996). Among the different aspects of parental monitoring explored, maternal presence before school was the only characteristic that varied significantly between generations with first generation teens being more likely to have their mother home before school compared to second generation youth. These differences may be due to the possibility of second generation youth being more likely to have a mother who is employed and who may leave for work prior to the adolescent leaving for school.

Alcohol use in this sample increased successively with each generation. When differences in parental monitoring and family support were held constant, generational differences were significant. These findings indicate that maternal presence after school and aspects of family support have a significant impact on differences in alcohol use between generations.

Maternal presence after school was determined to be an important protector against the risk of alcohol use in this sample. Maternal presence after school was also found to protect youth
Family Support and Parental Monitoring as Protective Factors

with higher rates of depression from turning to alcohol and to reduce the odds of drinking for older adolescents. In addition to this, youth with higher rates of depression were at increased risk of experiencing social problems as a result of drinking however, this risk was reduced by maternal presence before bed.

Maternal presence before going to bed consistently served as an important deterrent against consuming a higher number of drinks, getting drunk, and alleviating the risk of experiencing social problems as a result of drinking. Maternal presence before bed also alleviated the risk of experiencing drinking-related social problems for youth with higher rates of depression. As mentioned previously, being an adolescent male is a highly significant predictor of alcohol use and frequent alcohol use. Unfortunately, higher levels of parental monitoring were not found to eliminate this risk.

Statement of Limitations

The data used in the present study was retrieved between 1994 and 1995 and is therefore several years old. Nonetheless, the benefits of continuing to analyze this data outweighs this limitation as it is the only data set available that provides comprehensive information about Mexican American adolescents across the United States. As with other cross sectional data, the information obtained in this study can only describe how things were happening at that point in time and may not necessarily reflect the present. Another limitation of the study is that it specifically captured information from adolescents who were attending school at the time the study was conducted, therefore excluding valuable information regarding the health behaviors and parenting factors affecting students who have dropped out of school and who may be most vulnerable to mental health problems and substance use. This limitation also potentially hinders the generalizability of study results as Mexican immigrants educated in U.S. schools are reported
Family Support and Parental Monitoring as Protective Factors
to account for 20 percent of the dropout rate (Morse, 2005) and Hispanic youth represent 22.1%
of the overall high school dropout rate (U.S. Department of Education National Center for
Education Statistics, 2008).

A potential limitation of this study was the reduction in the sample size resulting from the
use of sample weights and from lack of information about parental birthplace, which prevented
some of the Mexican Americans from being categorized by generational status. The use of
sampling weights was required (Chantala & Tabor, 1999) in order to provide accurate results, to
account for the overrepresentation of some populations in the ADD Health study, and to allow
for population generalizations of study results. While it also contributed to a reduction in the
sample size, exploration of key variables by generational status was an important contribution of
this study as it provided the ability to obtain intergenerational information about the Mexican
Americans in this sample. Finally, the removal cases where the adolescents reported either
drinking prior to age 9 or drinking over 20 drinks a day could pose a limitation as there is a
possibility that some of these respondents in fact answered these questions truthfully and may
have been incorrectly excluded. The removal of these outliers was necessary however, to
address heteroscedasticity in the data.

While the advantages outweigh many of the disadvantages, the use of secondary analysis
has some constraints. First, it is difficult to assess for errors made in the original surveys and
little information is available about the specific collection procedures and development of the
surveys. A second limitation pertains to the use of pre-existing questions. This limitation
required that the questions used in the original study become proxies for measuring the concepts
explored in this study. Therefore these proxies may not have captured each aspect of the variable
as precisely as might have been desired. For example, when considering the indicators of
family support, it was noted that the question about whether or not the adolescent felt attended to by family members could also be considered an indicator of parental monitoring.

It is important to note that the information about family support and parental monitoring was based on adolescent perception and that this could be biased especially for teens who were depressed. Therefore, the use of additional variables and information provided by the parent could have been useful to capture the parent-child relationship and to further understand the relationship between parenting practices on adolescent risk taking behaviors and mental health.

The use of survey data poses some specific limitations due to its reliance on a self-report method of data collection which could lead to a number of inaccurate responses either through the participant’s poor recollection, deliberate underreporting or over-reporting of events, or misunderstanding of the question. Furthermore, in the present study, there are also potential concerns about whether participants who were not fully English proficient were able to comprehend the questions. A particular concern for English language learners is that certain complex concepts may not translate directly from one language to another, therefore possibly resulting in the participant unintentionally providing misinformation. No information is available about how the interviewers were trained, what steps were taken to eliminate any of these concerns, or whether any methods such as member checking were used to verify participant responses.

The benefits of analyzing data where the audio-Casi was used for more sensitive questions is that it may have yielded more reliable results regarding adolescent alcohol use compared to other interview formats. However, since the interview was conducted at home, anxiety about revealing information may have been heightened, therefore influencing participant responses.
Family Support and Parental Monitoring as Protective Factors

Implications for Practice and Policy

The increased independence that accompanies Western views of the process of separation-individuation in adolescence is contrary to traditional Latino parenting values that encourage interdependence and reliance on family members. Consequently, it appears to be this same reliance on the family combined with the increased parental support and supervision that first generation immigrants experience that most enhances their mental health outcomes. Because clinical practice is frequently guided by theory, these findings also illustrate the importance of taking culture into account when considering models of explaining “normal” adolescent development as there is the risk that in encouraging Mexican American clients to adapt to western views of parenting, the protective qualities of immigrant parenting styles could be lost.

The research presented in this study has many clinical implications for the social work profession. The results of this dissertation indicate that there are parenting practices such as higher levels of family support and parental monitoring that protect Mexican American youth from depression and use of alcohol. The important role of the parent-child relationship in adolescent mental health and alcohol use outcomes found in this study highlights the importance of including family members in therapeutic interventions for adolescents. Clinicians can also use this information to educate and empower parents to modify their parenting skills in ways that can benefit and protect their children. By understanding which adolescents are most at-risk of alcohol use and depression, clinicians can use the findings in this study to enhance their assessment and treatment of Mexican American youth.

Understanding risk factors associated with depression and alcohol use are important in formulating preventive programs to target those teens that are at increased risk. As in other studies, females were found to experience significantly higher rates of depression compared to
Family Support and Parental Monitoring as Protective Factors

males indicating the need for continued preventive efforts to understand causes of depression in adolescent girls. One important finding in this study was that family support was an important mediator in counteracting the relationship between gender and depression. Feeling understood, paid attention to, and wanting to remain at home were important deterrents against depression for the girls in this study. These findings underscore the importance of understanding family dynamics and encouraging these traditional Mexican American family values among family members when treating symptoms of distress in this population.

In this study, males were found to be consistently in danger of consuming alcohol and using alcohol frequently. These findings indicate the importance of ongoing research and development of programs to encourage alternative methods of coping for Mexican American males who may be more likely to turn to alcohol to alleviate distress. Similarly, clinicians can utilize this information to facilitate open communication and to provide education about the risks of alcohol use with their Mexican American male patients.

The information obtained in this dissertation can guide social workers in improving quality of life for Mexican American children through advocacy for the development of culturally sensitive programs and services. Given that first generation youth have the lowest levels of depression and alcohol use, clinicians should increase their cultural awareness to encourage and celebrate traditional values in their Mexican American clients and to create programs that support and encourage these values.

Finally, as this study demonstrates, understanding generational differences in depression and alcohol outcomes is an important aspect of clinical practice and intervention efforts for Mexican Americans. While family support and parental monitoring are important factors, these family dynamics do not fully explain the relationship between gender and alcohol use. Thus
Family Support and Parental Monitoring as Protective Factors

there are other factors that contribute to the risk of alcohol use and frequent drinking for native-born youth that require further study.

Implications for Future Research and Conclusion

This study has contributed to the existing literature in several ways. First, this research addressed some of the gaps identified in previous studies including the need for exploration of mental health and alcohol use outcomes in Mexican American teens. This study also provided important demographic information as well as insight into generational differences for 1424 Mexican American adolescents residing across the United States.

This dissertation explored the role of family support and parental monitoring in preventing psychological distress and alcohol consumption in ways not previously examined. This study took advantage of the wealth of information provided in the ADD Health data set to create new scales that measured the constructs of social problems related to drinking and family support. The social problems related to alcohol use scale had a satisfactory Cronbach’s alpha of 0.76 and therefore could be utilized in future studies. The family support scale contained a modified version of the social support scale that was previously utilized by Harker (2001) in a social support scale. Because the Cronbach’s alpha of 0.75 associated with this family support scale was acceptable, this scale could also be potentially used in future studies that explore a similar construct.

The large volume of information in the ADD Health data set makes the possibilities for ongoing research virtually limitless. While Mexican American adolescents remain a relatively understudied population, the ADD Health data provides an opportunity for researchers to continue to conduct research to gain a better understanding of mental health and substance abuse of this Latino group. Future studies could consider whether there are differences in the impact of
family support and parental monitoring on depression and alcohol use for adolescents of other ethnic groups. Such studies could include exploration about whether family dynamics serve as protective factors in use of other substances.

As this study has shown, the relationship between an adolescent and their family can serve as an important protector against psychological distress and possible alcohol use. Further research on understanding parenting practices and their impact on adolescent development is crucial. While this study focused on the resident mothers, future studies should be conducted on understanding the important relationship between paternal parenting styles and mental health and substance abuse outcomes in Mexican Americans and youth of other ethnicities. Furthermore, because the school is a second home to adolescents who spend a significant portion of their life there, future research about relationships with teachers and other school personnel as potential protectors against these risk factors may prove useful.

Depression and alcohol use in this study, as in many prior studies, were highly correlated. Youth with higher levels of depression were found to drink more often and to experience a higher risk of social problems related to drinking. These findings indicate that without the protective family variables, the Mexican American youth in this sample were more likely to turn to alcohol to alleviate distress and to engage in risk taking behaviors while drinking. Future research should aim to understand what makes this population vulnerable to coping with depression by using alcohol and what prevention and intervention efforts outside of the family can be implemented.

One of the most important findings in this study was that second generation youth were at significantly higher risk of depression compared to first generation youth. Future research could
Family Support and Parental Monitoring as Protective Factors

explore how bicultural stress may play a role in increased depression for these adolescents as they struggle to navigate the norms and values of two distinct cultures.

In conclusion, the findings in this study contribute to the social work profession by providing a deeper understanding of how family support and parental monitoring affect levels of depression and alcohol use in Mexican American youth. These findings underscored the importance of family for this Latino population and found important generational differences in levels of depression and alcohol use. This research can provide a useful lens in understanding the complex acculturation process for this population and can contribute to providing culturally competent treatment for Mexican American adolescents.
Family Support and Parental Monitoring as Protective Factors

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Family Support and Parental Monitoring as Protective Factors


Family Support and Parental Monitoring as Protective Factors


Family Support and Parental Monitoring as Protective Factors


Family Support and Parental Monitoring as Protective Factors


Family Support and Parental Monitoring as Protective Factors


Family Support and Parental Monitoring as Protective Factors


Family Support and Parental Monitoring as Protective Factors


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Family Support and Parental Monitoring as Protective Factors


Family Support and Parental Monitoring as Protective Factors


117
Family Support and Parental Monitoring as Protective Factors


Family Support and Parental Monitoring as Protective Factors


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Family Support and Parental Monitoring as Protective Factors


Family Support and Parental Monitoring as Protective Factors


Variable: Mexican Origin
A) Are you of Hispanic or Latino origin?
B) What is your Hispanic or Latino background?

Variable: Parental Monitoring (Pertaining to the Resident Mother)
A) How often is she at home when you leave for school?
B) How often is she at home when you return from school?
C) How often is she at home when you go to bed?
D) On how many of the past 7 days was at least one of your parents in the room with you while you ate your evening meal?

Variable: Family Support
A) How much do you feel that your parents care about you?
B) How much do you feel that people in your family understand you?
C) How much do you feel that you want to leave home?
D) How much do you feel that you and your family have fun?
E) How much do you feel that your family pays attention to you?

Variable: Depression
A) You were bothered by things that usually don’t bother you.
B) You didn’t feel like eating, your appetite was poor.
C) You felt that you could not shake off the blues, even with help from your family and your friends.
D) You felt that you were just as good as other people.
Family Support and Parental Monitoring as Protective Factors

E) You had trouble keeping your mind on what you were doing.

F) You felt depressed.

G) You felt that you were too tired to do things.

H) You felt hopeful about the future.

I) You thought your life had been a failure.

J) You felt fearful.

K) You were happy.

L) You talked less than usual.

M) You felt lonely.

N) People were unfriendly to you.

O) You enjoyed life.

P) You felt sad.

Q) You felt that people disliked you.

R) It was hard to get started doing things.

S) You felt life was not worth living.

*Variable: Alcohol Use*

A) Have you had a drink of beer, wine, or liquor—not just a sip or a taste of someone else’s drink—more than 2 or 3 times in your life?

*Variable: Age of First Alcohol Use*

Think about the first time you had a drink of beer, wine, or liquor when you were not with your parents or other adults in your family.

A) How old were you then?
Family Support and Parental Monitoring as Protective Factors

*Variable: Frequency of use/Amount of drinks consumed*

A) During the past 12 months, on how many days did you drink alcohol?

B) Over the past 12 months, on how many days have you gotten drunk or “very, very high” on alcohol?

C) Think of all the times you have had a drink during the past 12 months. How many drinks did you have each time?

*Variable: Social Problems related to drinking*

Over the past 12 months, how many times has each of the following things happened?

A) You got into trouble with your parents because you had been drinking.

B) You’ve had problems at school or with school work because you had been drinking.

C) You had problems with your friends because you had been drinking.

D) You had problems with someone you were dating because you had been drinking.

E) You did something you later regretted because you had been drinking.

Over the past 12 months, how many times:

E) Did you get into a sexual situation that you later regretted because you had been drinking.

F) Did you get into a physical fight because you had been drinking.

*Variable: Generational Status*

A) In what country were you born?
Family Support and Parental Monitoring as Protective Factors

B) Was she (your mother) born in the United States?

C) In what country was she born?

Variable: Socioeconomic Status

A) Do you have enough money to pay your bills?

B) Last month, did you or any member of your household receive:

1) Social Security?

2) Supplemental Security Income (SSI)?

3) Aid to Families with Dependent Children (AFDC)?

4) Food stamps?

5) A housing subsidy or public housing?

6) Unemployment?

Variable: Gender

A) Male

B) Female

Variable: Age

A) What is your birth date?
APPENDIX B: TRANSFORMATIONS OF THE DEPENDENT VARIABLES

Standardized normal probability plot of residual of regressions with and without transformation of the dependent variable.

**Depression**

**Square root depression**

**Social problems related to alcohol use**

**Square root of social problems related to alcohol use**
Family Support and Parental Monitoring as Protective Factors

Frequency of alcohol use

Times drank in past 12 months

Log transformation of times drank in 12 mo.

Times have gotten drunk in past 12 months

Square root of Times have gotten drunk/12 mo.
### APPENDIX C: BIVARIATE CORRELATIONS OF FAMILY SUPPORT AND PARENTAL MONITORING WITH INDEPENDENT VARIABLES

<table>
<thead>
<tr>
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<th>Parental Monitoring</th>
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<td></td>
<td>How much do you feel that….</td>
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<td>Your parents care about you?</td>
<td>Your family understands you?</td>
<td>You want to leave home?</td>
<td>You and your family have fun together?</td>
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<th>Food Stampsa</th>
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*Note: Correlations are two-tailed, except for Depression, Alcohol Use, and Age of first use of alcohol, which are one-tailed.*** p < .001, ** p < .01, * p < .05.
### Family Support and Parental Monitoring as Protective Factors

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Note: Standard Error in parenthesis

a. Last month did you or any members of your family receive?

b. Questions pertains to frequency of alcohol use in the past 12 months

*** p<0.01 ** p<0.05