Characteristics of Hispanic Seventh-day Adventist Adolescents Who Attempted Suicide

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CHARACTERISTICS OF HISPANIC SEVENTH-DAY ADVENTIST ADOLESCENTS WHO ATTEMPTED SUICIDE

A Dissertation
Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy

by
Juanita E. Trivino
November 1999
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ADOLESCENTS WHO ATTEMPTED SUICIDE

A dissertation
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ABSTRACT

CHARACTERISTICS OF HISPANIC SEVENTH-DAY ADVENTIST ADOLESCENTS WHO ATTEMPTED SUICIDE

by

Juanita E. Trivino

Chair: Nancy J. Carbonell
Problem

Hispanic adolescent suicide attempts appear to have been understudied, while suicidal behavior continues to be a concern as a youthful phenomenon. The present study sought to contribute to the understanding of Hispanic youth suicide and its association with acculturation, family, religion, and gender in a sample of Hispanic Seventh-day Adventist adolescents.

Method

The data used for this study came from the Avance survey, the largest denominational survey conducted among
Hispanic Seventh-day Adventists in the U.S. (1993-1994). The sample consisted of 869 adolescents, comprised of 380 males and 489 females. Chi-square, t test for means of two independent samples, and discriminant analyses were used to examine acculturation, family, religion, and gender to identify characteristics of Hispanic SDA suicide attempters.

**Results**

The results indicated that several variables were significantly correlated with suicide attempts \((p < .05)\): family cohesion, parental religiosity, abuse (verbal, physical, and sexual), faith maturity, church climate, and family status. Furthermore, the discriminant function was statistically significant \((p < .05)\). The function indicated that an Hispanic who perceived less family cohesion, was highly acculturated, perceived a less warm church climate, was female, and who had suffered sexual and physical abuse was more likely to have attempted suicide.

**Conclusions**

There are some characteristics that seem to influence Hispanic SDA adolescents to attempt suicide. However, caution must be exerted so as to not draw definite conclusions from this study to other Hispanic populations. More studies among Hispanics are needed in this field.
Dedicated to my daughters,

Ester, Edna, and Jossye
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CHAPTER 1

INTRODUCTION

Concern about adolescent suicide has increased in recent years due to a definite increase in suicide rates. The rate of suicide among 15- to 19-year-olds in 1950 was only 2.7 per every 100,000 of this age population. By 1979, the rate had risen to 12.4, exceeding the rate for all ages combined for the first time. In response to this dramatic increase in youth suicide rates, the Secretary’s Task Force on Youth Suicide was established in 1985 (Alcohol, Drug Abuse, and Mental Health Administration, 1989) in order to work on reducing the youth suicide rate to less than 1 per 100,000 among the youth of this age group by 1990.

However, the latest data revealed national rates of suicide among youth of 13.3 per 100,000 of this age group in 1995, 12.1 in 1996, and 11.9 in 1997 (Centers for Disease and Prevention [CDC], 1998a; Hoyert, Kochanek, & Murphy, 1999). Some researchers suggest that these rates may be even higher because it is likely that some suicides are officially reported as “accidents” or attributed to other causes (Berman & Jobes, 1995). In fact, suicide is
currently the third leading cause of death among the 15- to 24-year-old population (CDC, 1998a; McIntosh, 1997).

This description becomes even more alarming when suicide attempts are taken into consideration. Although no official national data exist for suicide attempts in the United States, figures are extrapolated from research data. It is estimated that for each completed adolescent suicide per year, there are 50 to 200 attempted suicides, leading to an annual attempter population of perhaps 250,000 to 500,000 individuals (Husain, 1990; McIntosh, 1997). Further, in the 1997 national school-based Youth Risk Behavior Survey (CDC, 1998b), which is conducted biannually among students from 9th-12th grades, it was reported that 20.5% of students had thought seriously about attempting suicide, and 7.7% had attempted suicide one or more times during the 12 months preceding the survey. Indeed, as many as 11% of all "normal" high-school students can be expected to have made at least one suicide attempt in their lifetime (Andrews & Lewinsohn, 1992; Garland & Zigler, 1993; Husain, 1990; Roberts, Chen, & Roberts, 1997).

Suicide rates are known to differ among ethnic groups according to mortality reports (Hoyert et al., 1999; McIntosh, 1987; Shiang, 1998). When McIntosh (1987) surveyed Hispanics in ten states representing 80% of the Hispanic population, he reported a lower overall suicide
rate for Hispanics (adults and youth) than for Caucasians in the United States. He also reported that Hispanic suicide appeared to be a youthful phenomenon (like for Blacks and Native Americans) in contrast to Caucasians and three Asian American groups (Chinese, Japanese, and Filipino) whose suicide-rate peaks were in the old age group. Recently, Shiang (1998), in her study of suicide among youth, from 1987-1996, in the San Francisco area, reported findings similar to those of McIntosh’s (1987) research. The Hispanic youth group (15-24 years of age) was found to be at the highest risk of suicide when compared to African American, Caucasian, and Asian ethnic groups. However, contradictory findings were reported recently. The latest official report on mortality data in the United States for 1997 (Hoyert et al., 1999) revealed that the Hispanic youth suicide rate was lower (8.8 per 100,000) than the Caucasian rate (12.3).

Similar to suicide rates, suicide attempts are also known to differ among ethnic groups. Hispanic adolescent suicide attempts have been consistently found higher than for both African Americans and Caucasians (CDC, 1998b; Kolbe, 1990). For example, in a large survey of 11,631 high-school students, who reported suicide attempts in the 12-month period prior to the survey, Kolbe (1990) found Hispanic youth percentages (12%) to be higher than those
for the African Americans (6.5%) and Caucasians (7.9%). Likewise, in the 1997 national high-school Youth Risk Behavior Survey (CDC, 1998b), it was reported that Hispanic students (10.7%) were more likely than Caucasian students (6.3%) and African Americans (7.3%) to have attempted suicide during the 12 months preceding the survey.

In the Valuegenesis study (Dudley & Gillespie, 1992), a major Seventh-day Adventist nationwide survey, adolescents were asked to report suicide attempts. Suicide attempt percentages were higher for Hispanics (18.5%) than Caucasians (12%), African Americans (16.4%), or Asians (15.3%). Only American Indians reported higher percentages (21.5%) than Hispanics. Later, in the Avance survey (Hernandez, 1995), Hispanic Seventh-day Adventist (SDA) youth respondents were asked to report suicide attempts during a 12-month period prior to the survey. Results revealed that suicide attempters made up 11% of the SDA youth sample. Hispanic SDA adolescents seemed to be at similar risk of suicide attempts as the general adolescent population and at higher risk than other SDA ethnic groups. Unfortunately, little is known about the characteristics of Hispanic SDA adolescents who have attempted suicide.
Statement of the Problem

There is evidence that psychological problems or psychiatric syndromes are commonly present in suicidal behavior (Brent, 1995; Brent, Perper, Moritz, Allman, et al., 1993; Brent, Perper, Moritz, Baugher, & Allman, 1993; De Man, 1999; Hopes & Williams, 1999; Wetzler et al., 1996). However, these factors are not enough to establish the characteristics of suicide attempters. Hendin (1995) explains that the majority of patients with depression, schizophrenia, or alcoholism (all frequently associated with suicide) were not suicidal. There are several other important psychological and social factors found to be associated with suicide attempts, such as family history, age, and gender. This investigation, based on previous research, examined acculturation, family, religion, and gender in hopes of identifying some of the characteristics of suicide attempters among Hispanic SDA adolescents.

Purpose of the Study

Because limited research has addressed the problems of Hispanic SDA youth living in the United States, the Avance survey was conducted as a follow-up to the Valuegenesis study, focusing on the unique needs facing the Hispanic Adventist community (Hernandez, 1995). Using data from the Avance survey, the present study attempted to
identify some characteristics of Hispanic SDA adolescent suicide attempters.

This study’s purpose was, first, to aid those interested in suicide prevention. Shafii, Carrigan, Whittinghill, and Derrick (1985) stated that “the suicidal ideation of yesterday is highly likely to become the suicide threat or attempt of today or the completed suicide of tomorrow” (p. 1064). If suicide attempts often lead to suicide in the general population (Farberow, 1985; Pfeffer et al., 1993), it can be inferred that the same risk applies to Hispanic SDA adolescents.

Second, this study hoped to increase awareness and knowledge of Hispanic adolescent suicidal behavior and to encourage Christian leaders to initiate educational programs to reach this vulnerable population.

Finally, the findings might be useful to other Hispanic adolescents who live in family and church environments similar to those in the Hispanic SDA Church.

Research Questions

Four research areas are the focus for this investigation: acculturation, family, religion, and gender. The following research questions were examined:

Research Question 1: Is there a relationship between acculturation level and suicide attempts?
Research Question 2: Do suicide attempters experience less family cohesion than the nonattempters?

Research Question 3: Do suicide attempters perceive their parents lower in religiosity than the nonattempters?

Research Question 4: Do suicide attempters experience more abuse than the nonattempters?

Research Question 5: Are suicide attempters lower in faith maturity than the nonattempters?

Research Question 6: Does church attendance make any difference between attempters and nonattempters?

Research Question 7: Do suicide attempters perceive a less warm and friendly church climate than the nonattempters?

Research Question 8: Are suicide attempters more likely to be females?

Research Question 9: Are adolescents from intact families (parents live together) at lower risk of attempting suicide than those from non-intact families?

Research Question 10: Are Hispanic suicide attempters more likely to belong to any specific generation in the United States?

Research Question 11: Which of these variables (acculturation level, family cohesion, abuse, parental religiosity, faith maturity, church attendance, church
climate, gender, generation in the U.S., and family status) when considered together, will significantly discriminate between those who have attempted suicide and those who have not attempted suicide?

**Theoretical Framework**

In studying suicide attempts among Hispanic adolescents (and other populations), no single characteristic has been isolated as the sole risk to suicidal behavior. But "one promising scientific approach to understanding and preventing suicide is through the identification of risk factors, or characteristics of individuals that are associated with an increased risk of suicide" (Alcohol, Drug Abuse, and Mental Health Administration, 1989, p. 19).

Consequently, over the past decade an increasing number of studies have attempted to identify the characteristics of suicidal adolescents in the general population (De Man, 1999; Garrison, Jackson, McKeown, & Waller, 1991; Hendin, 1995; Hollis, 1996; Lewinsohn, Rohde, & Seeley, 1993; Miller, King, Shain, & Naylor, 1992; Rubenstein, Heeren, Housman, Rubin, & Stechler, 1989; Smith & Crawford, 1986; Wetzler et al., 1996) and some in the Hispanic population (Husain, 1990; Ng, 1996; Queralt, 1993; Shepard, 1995; Zayas & Dyche, 1995).
Specifically, Husain (1990) identified several psychosocial factors that he suggested contribute to suicide behavior in Hispanic adolescents and identified them as follows: demographic factors (age, gender), sociocultural factors (racial, religious, and cultural variables), family-related factors (family turmoil, disturbed parent-child relationships, physical and sexual abuse), and depression.

Zayas and Dyche (1995) amplified further this portrait of Hispanics by stating that in addition to the "common risk factors" for adolescents, whatever their cultural background is, several sociocultural and psychological factors are unique to Hispanics. The researchers called these factors "contextual risk factors." From this sociocultural perspective, they emphasize the migration experience, the dynamics of acculturation, and intergenerational family processes as contextual risk factors that influence suicide attempts among Hispanics.

Therefore, the current investigation, based on the above recommendations and findings, examined acculturation, family, religion, and gender in order to explore whether these variables identified suicide attempters among Hispanic Seventh-day Adventist adolescents.
Definitions of Terms

Some terms are defined as used in this study to provide consistency of meaning:

**Acculturation:** The dynamic process that occurs when two cultural groups are in constant contact with each other (Berry, 1980). It involves elements such as language, dress, values, and manners or behaviors.

**Adolescence:** In this study, it includes males and females from ages 13 through 21.

**Contextual risk factors:** These factors include “the specific social and cultural experiences that are the architects of psychological responses to crises among different ethnocultural groups” (Zayas & Dyche, 1995, p. 207).

**Family cohesion:** Involves a degree of commitment and love to help and support family members and provide for one another. It is used in this study interchangeably with family unity.

**Faith maturity:** Includes a concept that shows a “vertical” relationship with a loving God (Dudley, 1994; Thayer, 1993).

**Generation in the United States:** Immigrant or first generation refers to the Hispanic born outside the U.S.; second generation refers to the Hispanic born in the U.S.
from parents born outside the U.S., third generation refers
to the Hispanic born in the U.S. from parents also born in
the U.S., and fourth generation refers to the Hispanic born
in the U.S. from parents and grandparents also born in the
U.S.

**Hispanic:** Researchers use either Hispanics or Latinos,
or both interchangeably. "Latino" comes from the term
"Latin America" and refers to anyone of Latin America
descent. "Hispanic" was created by the U.S. federal
government in the early 1970s in an attempt to label this
diverse population in connection to the Spanish language
and for census purposes. Though the term "Hispanic" is
widely used, some object to its sterile origin (Hagey,
1999). Here, "Hispanic" is preferred and includes anyone
who lives in the United States with linguistic or cultural
antecedents in Mexico, Central America, or South America.

**Suicide attempter:** Someone who tried to commit suicide
but did not succeed. The term "attempter" is typically
used in opposition to the term "completer."

**Delimitations**

A delimitation of this study is that the adolescent
sample was selected from only one religious denomination,
the Hispanic Seventh-day Adventist Church in the United
States, with possible unique characteristics in comparison
to other Hispanic and Christian churches. Although living conditions in Hispanic SDA families represent some of the typical social conditions that any Christian Hispanic adolescent faces, this sample may not represent the full range of conditions that other Christian Hispanic adolescents may face in their families and churches.

Additionally, research has revealed a number of other possible biological, psychological, and sociological characteristics related to suicide attempts that are not included in this study.

**Limitations**

This study has some limitations which impact its generalizability, as follows:

First, the *Avance* survey was taken during a Saturday afternoon youth meeting. Therefore, responses of the Hispanic SDA adolescents attending church on Saturday afternoons may not apply to all Hispanics. As Hernandez (1995) stated: "The sample is biased toward the more committed and faithfully attending members" (p. 48).

Second, the individuals who participated were volunteers. As a result, the study may reflect only suicidal behavior of those who were willing to participate and not the behavior of those who were not willing to participate.
Third, some questions are retrospective (i.e., abuse, suicide attempts), and recall may be distorted by present circumstances.

Organization of the Dissertation

This dissertation is organized into five chapters. Chapter 1 presents the problem, purpose, significance, theoretical framework, and limitations and delimitations of the study. Chapter 2 presents a review of the related literature. Chapter 3 describes the Avance survey, the population sample, variables included in the study, research hypotheses, and method of analyses. Chapter 4 describes the results of the analysis of the data. Chapter 5 presents a review of the purpose and methodology of the study, a summary of the literature review, a discussion of the findings, and recommendations.
CHAPTER 2

REVIEW OF THE LITERATURE

The review of the literature includes a brief portrait of adolescent suicidal behavior, a profile of Hispanics, and the presentation of acculturation, family, religion, and gender as related to Hispanic adolescent suicide attempts.

Adolescent Suicidal Behavior

In attempting to describe why adolescents want to kill themselves, Leenaars and Lester (1995) emphasized the idea that suicide is not simply due to an external event, though precipitating events are usually present. They illustrated their position with the example of a 16-year-old teenager boy who committed suicide:

The parents found out that his girlfriend rejected him the day of his suicide. Some thought that was the reason. . . . A few friends and his teachers knew that he had been having problems at school. They thought that was the reason. A few others knew that his father was an alcoholic and abusive. That was the reason for them. His doctor knew that he had been adopted and had been upset recently about that. She knew the real reason. And others knew. . . . (p. 60)

After reviewing several studies on risk and protective factors, Grosz, Zimmerman, and Asnis (1995) agreed that
adolescent suicidal behavior is a multi-determined phenomenon. They emphasized that despite the increase of models to explain the interaction of risk and protective factors on suicidal behavior, it still remains unclear how risk and protective factors interact. However, the identification of factors related to adolescent suicidal behavior is crucial in the purpose of developing programs to reach adolescents at higher risk. In a report from the U.S. Department of Health and Human Services, it was stated that "one promising scientific approach to understanding and preventing suicide is through the identification of risk factors, or characteristics of individuals that are associated with an increased risk of suicide" (Alcohol, Drug Abuse, and Mental Health Administration, 1989, p. 19).

The increasing number of studies done during the last decade has already provided a deeper understanding of several characteristics of suicidal adolescents and factors involved in the suicidal behavior of most youth (De Man, 1999; Garrison et al., 1991; Hendin, 1995; Hollis, 1996; Lewinsohn et al., 1993; Miller et al., 1992; Rubenstein et al., 1989; Wetzler et al., 1996). Grosz et al. (1995) summarized the following risk factors: demographics (age, gender, race, and secular trends); psychosocial (family, stressful life events, physical or sexual abuse, imitation); social skills, problem solving, and support;
psychiatric risk factors (mood disorders, previous suicidality, hopelessness, conduct and personality disorders, and substance abuse), and genetic and biological risk factors. Furthermore, Leenaars and Lester (1995) identified adolescent suicide risks as follows: lack of generational boundaries, the family system is often inflexible (endangering the age-appropriate process of identity development), a parent is overly dependent on the adolescent and may treat him or her as an "adult," and long-term malfunctioning (i.e., parental absence, divorce, alcoholism, mental illness, sexual abuse).

Specifically, Husain (1990) identified several psychosocial factors that he suggests may contribute to suicide behavior in Hispanic adolescents. These factors were identified as follows: demographic factors (age, gender), sociocultural factors (racial, religious, and cultural variables), family-related factors (family turmoil, disturbed parent-child relationships, physical and sexual abuse), and depression.

**Contextual Risk Factors in Hispanic Adolescent Suicide Attempts**

Zayas and Dyche (1995) considered risk factors to be of two kinds: common risk factors and contextual risk factors. The researchers based the distinction on several case examples of Puerto Rican adolescent females' suicide
attempts. They stated that “common risk factors are shared characteristics among most youth” and “contextual risk factors are the specific factors derived from the unique sociocultural milieus of ethnic-racial minority adolescents” (p. 205).

Suicidal Hispanics, in general, and Hispanic Seventh-day Adventists, in particular, may face unique circumstances that are related to their sociocultural environment, such as acculturation, family functioning, and religiosity. Specifically, Zayas and Dyche (1995), after studying suicidal Puerto Rican females, emphasized the following contextual risk factors: the migration experience and network dislocation, the dynamic of acculturation, generational status (first, second, or later generation), and traditional Hispanic family processes that protect values that may be at odds with the majority culture.

Profile of Hispanics in the United States

The Hispanic population in the United States is growing fast, moving from 6% of the national population in 1960 to about 11.5% in 1999. Census projections suggest an increase to 13% by 2005 and 24% by 2050. Also, the Hispanic growth has been a youthful phenomenon, since the median age of Hispanics is 26.4 years old compared to 34.1 for the general population (U.S. Census Bureau, 1999).
Hispanic adolescents tend to live in large families, close to extended families, and appear to share family values of honor and respect. Many live in urban areas. They are found within the low socioeconomic level, and often report a lower educational level than the rest of the general population (Schick & Schick, 1991). Recent reports show that the proportion of Hispanic children and adolescents living in single-parent households has increased greatly in the last decade; however, Hispanic households are still more likely to consist of married couples with children than are non-Hispanic households (U.S. Census Bureau, 1998).

Although the term "Hispanic" includes Mexicans, Central Americans, and South Americans, despite national, individual, historical, and cultural differences among subgroups, Hispanics overall show a number of similarities. For example, Spanish, the common language, provides a sense of unity to all Hispanics. They often watch the same TV programs, listen to the same music, and read the same books. Further, they share aspects of a common background consisting of the great influence of the Catholic religion, and a history of colonization and independence from Spain (Lopez, 1998).

Hispanic Seventh-day Adventists, the population in this study, seem to share some similarities with the
general Hispanic population profile, such as high levels of poverty and low levels of educational achievement (Hernandez, 1995). Although Adventism enhances the socioeconomic level of Hispanics, Hispanic SDA families may have some similar sources of problems (i.e., migration, family functioning) as those found among Hispanic families in general. Hernandez (1995) suggested that though Adventism might bring blessings, other life events might still continue to bring dissatisfaction to the family.

Acculturation and Suicide Attempts

Introduction

Although acculturation has been studied extensively with Hispanic samples by sociologists and anthropologists in the past, just recently, psychologists have begun contributing to the understanding of acculturation. Acculturation has been defined as the dynamic process that occurs when two cultural groups are in constant contact with each other, leading to change in one or both cultures depending on the power relationship between them (Berry, 1980).

Several models of acculturation have emerged, each with its own emphasis. For example, Berry (1980, 1990, 1993) proposed a model of adaptation or reaction in which individuals choose from four strategies: integration,
assimilation, separation, and marginalization. Marin (1993) explained this process further saying that "after some initial changes, the individual reaches a state of conflict, at which point an adaptation strategy is reached" (p. 183). Thus, individuals choose to move toward, against, or away from the environmental situation or crisis. For example, an individual chooses to speak only the new language, maintain the original one, or become bilingual.

More recently, a humanistic interaction model was proposed by Garza and Gallegos (1995). This is a concept of a multi-dimensionality that considers both the complexity of environmental factors and the role of individual choice. However, they recognized that environmental barriers might interfere with the individual's choices, because the role of personal choice is not always present within immigrant families.

Whatever acculturation model is used to explain Hispanic behavior, there will always be present a source of crisis at both the individual and family levels since acculturation challenges cultural beliefs and values in diverse areas (e.g., dress, manners, language, diet). Williams and Berry (1991) used the term "acculturative stress" to describe the stress that results from the acculturation process. Acculturative stress may result in
several emotions and behaviors (i.e., depression, anxiety, alienation, identity confusion) that may threaten the well-being of Hispanics. However, the acculturation process appears to be alleviated by some psychological variables such as, high levels of family and social support. The researchers also point out the great variation in the amount of stress experienced by acculturating individuals. In many cases the acculturative experience may eventually enhance one’s life chances and mental health.

Though Hispanic youth will probably learn both the culture of their family and the American culture, they still will be more likely to adopt the cultural traits of the majority group. It appears that Hispanic youth make some kind of adaptation in response to demands for change (Bernal, Saenz, & Knight, 1995). When looking at Hispanic youths’ decisions to change or adopt the mainstream culture, their developmental stage needs to be considered. Immigrant children and adolescents face the new culture during their formative years, before a sense of self is consolidated (Zayas & Dyche, 1995) and when a failure to achieve an identity can lead to confusion and despair (Erikson, 1968). It seems that as social relations become salient aspects of adolescents’ lives, relationships outside the Hispanic family and community gain importance. This developmental shift in social identity may lead to
considerable conflict (Bernal et al., 1995). Although it is known that conflicts are usually present because of the intergenerational span between parents and adolescents, Hispanic family conflicts may also arise between the two different culture groups, Hispanics and Americans. Most Hispanic adolescents try to adjust to the discrepant expectations of a family-oriented culture and one oriented to individualism and achievement (Bernal et al., 1995).

In addition to the crises confronted by the challenge of one's own cultural values and beliefs, interpersonal problems often arise because of the pace of acculturation. Most children and adolescents go faster in the acculturation process than adults who usually resist acculturation or move slowly in the process. If families fail to adjust or compromise, family dysfunction arises (Zayas & Dyche, 1995). It seems that Hispanic children are placed in a difficult situation: parents came to the United States to provide a better life for their children, but often resist their children's acculturation. On the other hand, children want to be successful and show appreciation for their parents' sacrifices by trying to achieve academically. In order to reach this achievement, they must learn English, make friends, and become acculturated, all the very things their parents may resent (Baptiste, 1993).
It appears that despite the benefits of becoming part of the larger society, acculturation may be a source of stress and crisis for Hispanic families and deprive their members of some traditional values and the supportive social and familial structure provided by the traditional culture (Vega, 1995). Further, Hernandez (1995) emphasized that "acculturation threatens and undermines traditional strengths, such as notions of respeto (respect), high levels of motivation and idealism, family support, and the central role of the sacred, leaving few alternatives in their place" (p. 43).

The Role of Acculturation on Adolescent Suicidal Behavior

When reviewing the literature on suicidal behavior in Hispanic adolescents, one is immediately struck by the scant attention given to this area (Hovey & King, 1997). Although research on Hispanic suicidal youth is still very limited, some studies have suggested that acculturation should be a concern when dealing with adolescent mental health. For instance, acculturation strains (and drug use) interacted as predictors of suicide attempts in a sample of 6,760 male adolescents (Hispanic, White non-Hispanic, and African Americans) in Florida (Vega, Gil, Warheit, Apospori, & Zimmerman, 1993).

Ng (1996), after studying a sample of 61 Mexican
American adolescents living in Texas who had attempted suicide and were separated by the degree of intent (high, moderate, low), concluded that growing up as a Mexican American in the United States could be highly stressful. Adolescents in the high-intent group immigrated at an average age of 7. The researcher explained further that migration at this age is developmentally important because a social network is being established and a formal education is started. Often they are exposed to acculturation demands that can be more intense than those experienced by their parents. Hovey and King (1996) explored the relationship between acculturative stress, depressive symptoms, and suicidal behavior in a sample of Hispanic adolescents. They reported that some acculturating Hispanic adolescents experience high levels of acculturative stress, placing them at great risk for depression and suicidality.

As mentioned earlier (chapter 1), there is a lower overall suicide rate for Hispanics than for Caucasians in the United States (CDC, 1998a; McIntosh, 1987); however, Hispanic suicide rates are higher when compared to those in their countries of origin (Sorenson & Golding, 1988b; Sorenson & Shen, 1996). Furthermore, Hispanic adolescent suicide attempts have been estimated to be higher than other ethnic groups in the United States (Kolbe, 1990;
Shepard, 1995; Shiang, 1998); therefore, it appears that acculturation takes a toll on Hispanic adolescents' mental health (Hovey & King, 1996, 1997; Vega et al., 1993).

In summary, the literature suggests that there is a relationship between acculturation and youth behavior, but specifically how the levels of acculturation either mediate or contribute to suicide attempts of youth have received little attention in the literature. More studies in this area are needed.

**Family and Suicide Attempts**

**Family Functioning**

Family functioning has been described as the pattern of interaction among family members and also the family members' interactions with social systems outside the home (Rueschenberg & Buriel, 1995). What happens to Hispanic family functioning during the process of acculturation has been investigated (Canino, 1982; Rueschenberg & Buriel, 1995; Santiago, 1991). Although there is evidence that acculturation at different rates among family members does increase family conflict, "familism" (attachment, reciprocity, and loyalty to family), is still greatly valued and at the core of the Hispanic family (Santiago, 1991).

Thus, some findings have not supported the hypothesis
that low family acculturation would correlate with ineffective family functioning, because the basic internal family system (cohesion, expressiveness, conflict, organization, and control) appears to remain basically unchanged (Rueschenberg & Buriel, 1995).

In addition, highly acculturated adolescent females who come from flexible and supportive families often do not hold totally different values from those of their parents. Instead, the adolescents usually keep a balance between "behavioral acculturation" and "values acculturation." For example, girls may adopt changes in their behaviors, such as dress, music, or food while holding to values and attitudes similar to those of their parents, such as family values and sexuality (Canino, 1982).

However, when combined with the stress of migration and acculturation, some differences in cultural values or variation in the family process may predispose the adolescent to crisis and acting out through suicidal behavior. Queralt (1993) studied a sample of Hispanic adolescents and reported that the most striking difference between the suicide attempters and the non-attempters was in the area of conflict of values. Zayas and Dyche (1995) explained that their clinical experience has taught them over the years that when the Puerto Rican family is in crisis, there is often a disruption in the family's
traditional organization and hierarchy. In families of suicidal female adolescents, parents often remain rigid in their sex-role expectations, discourage role differentiation in the family, and allow their oldest daughters to perform parenting roles. This situation may become alarming if parents, especially the mother, are isolated from the community and the vast support system that they probably enjoyed in the previous community (Razin et al., 1991; Zayas & Dyche, 1995).

In a recent paper that summarized findings from community-based studies that have explored suicide and risk factors among immigrants and Mexican Americans, it was suggested that acculturating Mexican Americans appeared to “feel caught between the influence of traditional values and norms and their experiences in the mainstream society” (Hovey & King, 1997, p. 101).

Family Cohesion

Family cohesion seems to affect strongly the behavior of most adolescents (Arensman & Kerkhof, 1996; Brent, 1995; Green, 1978; Miller et al., 1992; Pfeffer, 1989). Family cohesion is a concept that involves a degree of commitment and love to help and support family members and provide for one another (Hernandez, in press).

Most suicide attempters perceived their families as
being less cohesive, less affectionate, and more disengaged, and also reported a lack of parental support during the time of the suicidal crisis (Miller et al., 1992). Otherwise, high-school students who have described their family life as having a high degree of mutual involvement, shared interests, and support were less likely to be suicidal than adolescents from less cohesive families who had the same levels of depression or life stress. One study showed that the combination of low family cohesion and high stress increased the suicidal behavior among adolescents from 20% to 57% (Rubenstein et al., 1989).

In a more recent study, Thorlindsson and Bjarnason (1998) tested Durkheim's (1897/1951) social suicide theory at a micro-level approach that focused on the suicidality of youth, and found that adolescents who were strongly integrated into their families (high family social support) were less likely to succumb to suicidality.

Thus, it appears that family cohesion may reduce the effect of stress on youth and Hispanic young people are not an exception. This finding is supported by a study which found that Hispanic adolescents were at greater risk of attempting suicide when they perceived a lack of cohesion and support by their families (Sorenson & Golding, 1988a, 1988b). Shepard (1995) also found that most Hispanic adolescents at highest risk of suicidal behavior were those
with low parental support and high levels of family life stressful events.

It appears that the role of the family and social support system is a major dimension in the psychosocial development of Hispanic youth. Despite that it appears that some family values decrease in importance as exposure to the United States culture increases, the high level of cohesiveness and support from the Hispanic family did not differ according to acculturation levels, not even among the most acculturated individuals or among different Hispanic groups (i.e., Mexican Americans, Cuban Americans, and Central Americans) (Sabogal, Marin, Otero-Sabogal, VanOss-Marin, & Perez, 1987). Thus, it is suggested that cohesive and supportive families may even prevent suicidal behavior among their adolescent members (Shepard, 1995; Sorenson & Golding, 1988a, 1988b; Thorlindsson & Bjarnason, 1998).

Adolescent Abuse

A major finding in the last few decades has been the recognition of the incidence of child and adolescent abuse and its long-lasting effects (Brayden, Deitrich-MacLean, Dietrich, & Sherrod, 1995; Moeller & Bachmann, 1993; Molnar, Shade, Kral, Booth, & Watters, 1998). Studies have reported that women who have been abused as children
(physical, sexual, and emotional abuse, or all three combined), when compared to a control group of women not abused as children, were: (1) at an increased risk for later psychological difficulties and more illnesses; (2) were more likely to have experienced abuse as an adult; and (3) reported a greater number of physical problems, including body image perceptions (Brayden et al., 1995; Moeller & Bachmann, 1993). Husain (1990) found that, among several other psychosocial factors, family-related factors such as family turmoil, physical and sexual abuse, and disturbed parent-child relationships can also contribute to suicidal behavior in adolescents. Let us now further explore this area.

**Physical Abuse**

Straus and Kantor (1994) reported, after studying a national sample of 6,002 adults, that almost half of the sample recalled having been corporally punished during their adolescence. These researchers also found that the use of corporal punishment by parents of adolescents was a risk factor for depression, suicide, and other destructive behaviors later in life. This high incidence of past corporal punishment in adolescence, and its harmful effects in one's later life, seem to support the data obtained in a previous study where parents of 13- to 15-year-old
children, who reported similar adolescent physical abuse, were interviewed (Straus, Gelles, & Steinmets, 1980).

Family violence involving physical and/or sexual abuse during adolescence is alarming, because abuse has been related to youth suicide attempts and suicidal ideation (Deykin, Alpert, & McNamarra, 1985; Green, 1978; Renaud, Brent, Birmaher, Chiappetta, & Bridge, 1999; Straus & Kantor, 1994; Wagner, Cole, & Schwartzman, 1995). Furthermore, Renaud et al. (1999) found that disruptive adolescents appear to be at risk for suicide, and that the risk increases if the adolescents have a past history of physical abuse and parents with substance abuse and mood disorders.

Although there is little research on Hispanic adolescent physical abuse and suicide, it seems that Hispanic adolescents are also greatly affected by physical abuse as are most youth. Green (1978) investigated a sample of children ages 5 to 13, mainly of African Americans and Hispanic descent, and found that the children's experiences of physical abuse appeared to increase the potential of self-destructive behavior, including suicide attempts, self-mutilation, and suicidal ideation. In this sample, the physically abused children demonstrated a significantly higher incidence of self-destructive behavior than did the two control groups of
non-abused children (one neglected and one “normal”). The researcher suggested that abused children learn to regard themselves with the same hostility and criticism consistent with the way their parents treated them, forming a “bad” self-image or poor self-concept. Green (1978) believed that this behavior appeared to represent a learned pattern that resulted from traumatic experiences during childhood (i.e., parental assault, blaming, rejection), and seem to be related to self-destructive behavior, including suicide attempts, suicidal ideation, and self-mutilation.

Recently, contradictory findings about suicidality have been reported. Flisher et al. (1997) examined a mostly Hispanic sample of 665 children and adolescents and found a history of physical abuse in 25.9% of the sample (n=172). In their study, physical abuse was associated with global impairment, poor social competence, conduct disorder, and anxiety, but not with suicidality. This finding is consistent with the findings of Spirito, Brown, Overholser, and Fritz (1989) in the general population. Flisher et al. (1997) explained that discrepant results found in some studies (i.e., Deykin et al., 1985; Green, 1978; Molnar et al., 1998) may be associated with unrepresentative samples and/or the presence of confounding variables.

Despite these contradictory findings, it seems appropriate to include physical abuse in any study
attempting to find the characteristics of Hispanic adolescent suicide attempters because of the high incidence of physical abuse reported among youth (Flisher et al., 1997; Molnar et al., 1998; Spirito et al., 1989).

Sexual Abuse

Some information exists on the subject of sexual abuse and suicidal behavior, although much of the knowledge about the incidence and the impact of sexual abuse in children has come from surveys of adults. The first national survey of adults concerning a history of childhood sexual abuse reported victimization by 27% of the women and 16% of the men (Finkelhor, Hotaling, Lewis, & Smith, 1990). Even a higher incidence of abuse was reported recently by Molnar et al. (1998) in a sample of adolescents. Among females, 70% reported sexual abuse and 35% reported physical abuse; among males, 24% reported sexual abuse and 35% reported physical abuse.

In addition, the impact of sexual abuse has been addressed by Stepakoff (1998), who reported that both childhood sexual abuse and adult victimization predicted suicidal behavior. Yoder, Hoyt, and Witbeck (1998) found that sexual abuse for a family member was a strong predictor of suicidal ideation and suicide attempts in a sample of 297 runaway youth. Similar findings were
reported by Molnar et al. (1998) in a sample of 775 adolescents. Those youth who were sexually or physically abused before leaving home were much more likely to have attempted suicide.

In trying to expand the understanding of sexual abuse among Hispanic youngsters, Mennen (1994) investigated the impact of sexual abuse on Hispanic girls (6 to 18 years of age) and compared their experience with African American and Caucasian girls. Findings reported that Hispanic girls were likely to be abused by a father figure, a person known to them, or a relative, have penetration abuse, be abused with force, and have many occurrences of abuse. Although similar findings were reported for the rest of the sample, Hispanic girls had more elevated levels of depression and anxiety and lower levels of self-concept than did children in standardization samples. In this sample, the consequences of the abuse appeared more severe for Hispanic girls.

It was also found that a large percentage of Hispanic victims of sexual abuse had experienced physical abuse (72.7%) and lived in the same house with their perpetrators (76.9%) (Mennen, 1994). This last finding may be related to the great percentage of Hispanic girls who live in households with their extended family. For example, when Mindel (1980) investigated extended families among urban
Mexican Americans, Caucasians, and African Americans, Mexican Americans reported the highest level of living with extended family members in their households.

In summary, despite the scarcity of research on suicide attempts and abuse among Hispanics and some contradictions found in a couple of studies, it seems that there is a relationship between suicidal behavior and physical and sexual abuse. It has been suggested that abused adolescents may internalize their feelings of anger toward their abusers, and this may result in higher levels of depression and lower self-esteem, which are both related to suicidal behaviors (Deykin et al., 1985).

**Religion and Suicide Attempts**

**Introduction**

A link between religion and suicide from a sociological perspective has been discussed for almost a century based on *Suicide*, Durkheim’s (1897/1951) seminal study of suicide. Durkheim hypothesized that suicide rate was determined by the society’s levels of social integration and social regulation. He proposed that Catholics who integrated individuals into a religious community (social integration) and shared more held beliefs and practices (social regulation), had lower suicide rates than Protestants who shared fewer beliefs and practices and
fostered free thought.

Recent research, however, tends to question the influence of Catholicism on suicide rates. In one study conducted in two sociocultural regions in Louisiana (a French Catholic, southern region, and a Protestant Anglo-Saxon, northern region), it was found that being Catholic did not result in lower rates of suicide (Wasserman & Stack, 1993). Stark, Doyle, and Rushing (1983) have criticized Durkeim’s social theory for being inconsistent and unconvincing, and argued that Durkheim’s concentration in contrasting Protestant and Catholic suicide rates took him away from the importance of doctrine in decreasing suicide potential. This is a religious commitment approach. This commitment perspective (Stack, 1983; Stark, 1980; Stark, Doyle, & Rushing, 1983) postulated that it is the importance of a commitment to a few core beliefs that lowers the risk of suicide within a religious community. However, little research has supported this perspective (Stack & Wasserman, 1992).

Since the time of Durkheim a century ago, a deviation from his traditional findings has emerged, referred to as the network theory. The network theory of suicide proposed an alternative way to explain the complexity of religious effects on suicide (Pescosolido & Georgianna, 1989). According to the network theory, it is not the shared
beliefs and religious practices that lower suicide, but the social support derived from networking with other members in the congregation and the adherence to religious beliefs that are positive. In Pescosolido and Georgianna’s study (1989), the Seventh-day Adventist Church was found to be among the four Protestant denominations whose structure and organization exerted the most protective influence against suicide.

Hendin (1995) criticized the preoccupation of many with Durkheim’s sociological theory of suicide, and stated that although the mixture of personal and social forces do appear to contribute to suicide, the study of suicide has been lacking in a psychosocial perspective due, in part, to Durkheim’s work. He added that Durkheim’s work, important in itself, has had a continuing and pervasive impact on subsequent work in the field of suicide.

In summary, research in this area suggests that religion may lower suicide due to the following factors: attending church, fostering commitment to some religious beliefs, providing religious ties among co-religionists, and developing networks with them (Pescosolido & Georgiana, 1989; Sorenson & Golding, 1988b; Stack, 1983; Stack & Wasserman, 1992; Stark et al., 1983).
Religion and Adolescent Suicidal Behavior

The relationship between religion and mental health and psychological adjustment among adolescents has been studied (Cochran, 1991; Gil & Thornton, 1989; Mosher & Handal, 1997). Although some findings have yielded inconclusive results (Gil & Thornton, 1989), Mosher and Handal (1997) reported a significant relationship between religion and psychological distress and adjustment in adolescents. Those adolescents scoring lower in scales relating to religiosity (i.e., ritual attendance, closeness to God, prayer) reported higher distress and lower adjustment.

A few studies have investigated the adolescent population to determine the effect of religion on suicide. For example, Stack (1985) examined the influence of religiosity on youth and found that as the importance of the family and religion declines, there was a rise in the rate of suicide both for the general population and for the youth cohort. In another study (Stack, 1998), it appears that religion played an important role in shaping suicide acceptability, and even may have reduced suicidal behavior through the provision of a “stratification or ranking system” when religions glorify the state of poverty, giving the poor greater self-esteem.

Domino (1981) investigated attitudes toward suicide
among Hispanic youth, and found that Mexican American adolescents endorsed more frequently a link between lack of religious values and suicide than did Caucasian youth. Respondents affirmed the beliefs that (1) the higher incidence of suicide was due to the lesser influence of religion, (2) those who attempted suicide were less religious, and (3) those who committed suicide lacked solid religious convictions. Furthermore, Rueschenberg and Buriel (1995) investigated Mexican American family functioning and acculturation, and found that the only external family system variable that did not change with acculturation was moral-religious emphasis.

It has been proposed that religion (Catholicism) may influence suicide among Mexican Americans in two ways (Hovey & King, 1997). First, religion itself may serve as a safeguard against suicide. It is considered not only a sin to take a life, but the hope of an afterlife may make suffering more endurable, and lower the risk of suicide. Second, religion has an influence on cultural norms, for example, baptism, communion, and the “Day of the Dead” celebration. These are all social events that may increase the bonds among family, friends, and extend support systems (Hovey & King, 1997).

It appears that Hispanic Seventh-day Adventists, the population studied in the present investigation, are not
different from the general Hispanic population in their religious experience. "The religious experience of Latino Adventists can be characterized as extremely committed, passionate, and energetic about the Adventist message and mission" (Hernandez, 1995, p. 36). For Hispanics, "congregations are citadels for enhancing and maintaining hope, community, and belief, within an increasingly alienating urban environment. Among the Protestant families of the Latino community, Adventism plays a major role" (Hernandez, 1995, p. 31). The church often becomes the center of cultural and social life within an often-threatening and diverse environment (Hernandez & Dudley, 1990).

Therefore, a warm church climate appears to be very important for the Hispanic community. It becomes part of their support system especially after leaving behind older supports due to immigration. For the youth, it also contributes to their sense of belonging and acceptance (Dudley & Gillespie, 1992). Berman (1997) emphasized that little can be done to prevent the triggering precipitants to suicide events, but suicidal behaviors have less likelihood of occurring if the need for the adolescent to feel valued by others is understood.

Consequently, on the basis of previous research, religion (church attendance, faith maturity, and church
climate) may also influence the number of suicide attempts by Hispanic SDA adolescents.

**Gender and Suicide Attempts**

Research has consistently found great differences between females and males on suicide attempts in samples which included different racial groups. Females showed the highest rates, with approximately three times more females attempting suicide over males (Andrews & Lewinsohn, 1992; CDC, 1998b; Miller et al., 1992; Pfeffer, 1989; Vannatta, 1997; Wagner et al., 1995).

Some researchers suggest that it is not surprising that females attempted suicide more than males since females continue to be affected by depression and suicidal ideation more often than men, with the highest numbers of attempts occurring among women between the ages of 16 and 25 (Brent, Perper, Moritz, Baugher, et al., 1993). Depression and suicidal ideation are known as strong predictors for suicidal behavior among females (Lewinsohn et al., 1993). Goldston et al., 1996) studied three suicidal groups (first-time attempters, previous attempters, and repeat attempters) and one nonsuicidal group. They found that, although adolescents did not differ greatly in depression by groups, they did differ in gender distribution. There was a larger proportion of
female adolescents among the attempters than in the nonsuicidal group. Aoki and Turk (1997) suggested that gender differences in suicide attempts may be related to suicide attempt data, because data are often gathered from health and mental health facilities, which are more frequently utilized by females.

There is some evidence of gender differences and suicidal behavior among ethnic groups. For example, Robins (1989) reported that adolescents who were female, Caucasian, and 15 or older were at higher risk for suicide attempts when compared to males in a sample with representation from different ethnic groups. Further, Shepard (1995) found that female suicide attempters showed the highest rate when they were compared to the whole sample, including Caucasian, Hispanic, and African American groups. Hispanic males, however, had more than twice the suicide-attempt rate of males when compared to all racial groups combined. And when Hispanics were separated by gender, female adolescents continued to have higher suicide-attempt rates than male adolescents.

Similar findings were reported by Queralt (1993) in a sample of Hispanic adolescents. Among suicide attempters, girls outnumbered boys by a 6:1 ratio. The researcher suggested that most cultures are more tolerant of men than of women to act in an aggressive way. In this context, men
would have less need than women to attempt suicide to vent their anger or frustration. Queralt (1993) added that this machismo may be more pronounced in Hispanic cultures and that unsuccessful suicide attempts may be perceived as unmanly. Consequently, a high number of Hispanic females will continue to be reported as suicide attempters, while Hispanic males probably will resort to suicidal behavior only when they really intend to kill themselves.

It has been also proposed that Hispanic females attempt suicide due to the disruption in the family dynamic process caused by migration, when mothers turn to their adolescent daughters for assistance in the absence of the family support system. This disruption “may predispose the adolescent to crisis and acting out through suicidal behavior” (Zayas & Dyche, 1995, p. 211).

Weiss (1995) investigated culturally based characteristics and life circumstances unique to Hispanic females who attempted or considered suicide. Findings suggest that when Hispanic adolescent girls become suicidal it is more in reaction to situational stressors and changes in their lives than to chronic depressive illness (non-Hispanic Caucasian adolescents showed more chronic or enduring depression). This finding supported Zayas and Dyche’s (1995) suggestions that there might be some cultural factors contributing to Hispanic adolescent
females' suicidality. In summary, it seems that gender is related to suicide attempts among adolescents. Although male and female rates of suicide attempts appear to be different within and among racial groups, studies have demonstrated that Hispanic female adolescents are at the highest risk of attempting suicide, and that some sociocultural factors appear to be unique to Hispanic suicidal adolescent females.

Other Demographics and Suicide Attempts

Family Status

Another factor linked with an increase in an adolescent's risk for a suicide attempt is living in a disrupted family environment where one or both parents is/are absent (Andrews & Lewinsohn, 1992; Brent, Perper, Moritz, Allman, et al., 1993; Queralt, 1993).

Further, research suggests that parental absence is more common among adolescents suicide attempters than among adolescents with high levels of depressed mood (Wagner et al., 1995).

Queralt (1993) carried out a study to explore potential psychosocial risk factors associated with completed suicide among Hispanic adolescents, ages 13 to 19. Adolescents who committed suicide in Miami, Florida, from 1988 to 1989, were compared to nonsuicidal matched-
pair controls. Findings showed that the victims had experienced more family stressors, including not living with both biological parents as a result of divorce or separation, than had the adolescents in the control group. Moreover, Ng (1996) separated a sample of 61 Mexican American adolescents who attempted suicide according to the degree of intent (high, moderate, and low) and compared the three groups to a control group. His findings showed that adolescents in the high-intent group had lived with both biological parents for a significantly longer time (almost 10 years) compared to the adolescents in the low-intent group (4.6 years). Data from demographics showed that the loss of a parent occurred around the age of 10. The researcher suggested that the loss of a parent may result in an increased demand for these children to perform adult responsibilities, which could be highly stressful, thus pushing these children into performing self-destructive behaviors, including suicide attempts, in later years because of the intense stress.

**Generational Status**

It has been recommended that instead of designing more cross-cultural studies between Hispanic and different ethnic groups, attention needs to be given to understand the heterogeneity that underlies the different subgroups of
Hispanics, for instance, how second- or third-generation Mexican American children differ from first-generation Mexicans in their behavior (Hovey & King, 1996; Padilla, 1995). Consequently, today many studies include a generational status question among their variables when studying Hispanic adult and youth behavior.

It has been reported that first-generation immigrants encounter more difficulties than their second- and third-generation counterparts, and seem to be at higher risk for distress and negative mental health effects than those born in the United States (Marcell, 1994; Warheit, Vega, Auth, & Meinhardt, 1985). It also appears that differences between the first, second, or third generation could affect Hispanics’ suicidal behavior. For example, early in 1961 the incidence of suicide attempts among Puerto Ricans, in New York City, was studied in relationship with immigration. It was found that a higher suicide rate existed among recent arrivals with low levels of acculturation, which was associated with “culture shock” (Trautman, cited in Torres-Matrullo, 1980). Later, in one study of 72 Puerto Rican men living in the United States, Torres-Matrullo (1980) reported that those recently arriving to the U. S. (first generation) rated in the low-acculturated level and possibly were at higher risk to demonstrate suicidal behavior.
A later study, however, has reported that immigrants or first-generation Mexican Americans are not necessarily at greater risk for mental illness or personal distress than second-generation Mexican Americans. In a comparative study of Mexican American adults born in Mexico, Mexican Americans born in the United States, and non-Hispanic Caucasians born in the United States, rates of suicide attempts were lower among Mexican Americans born in Mexico (first generation) than the other two groups (Sorenson & Golding, 1988b). A more recent study reported that this discrepancy on suicide rates between Mexican Americans born in Mexico and Mexican Americans born in the United States may have diminished over the last decade, since first generation Hispanics are reaching suicidal levels similar to U.S.-born Mexican Americans or second- and third-generation Hispanics (Sorenson & Shen, 1996).

Even so, Mexican American adolescents (second generation or later) continue to report higher levels of suicidal ideation than Mexican adolescents (first generation) (Hovey & King, 1996; Swanson, Linskey, Quintero-Salinas, Pumariega, & Holzer, 1992).

In summary, despite some inconsistent findings, it appears that adolescents who have lived in the United States the longest (i.e., second generation) would emerge more acculturated, have more tendencies to destructive
behavior, and are at increased risk for suicide attempts.

In closing, and as was implied throughout this review of the literature, Hispanic adolescent suicide attempts appear to have been understudied, while suicidal behavior continues to be a concern as a youthful phenomenon. Therefore, the present study will contribute to the understanding of Hispanic youth suicide and its association with acculturation, family, religion, gender, and other demographics in a sample of Hispanic SDA adolescents.

Summary

Risk factors, background information of the Hispanic population in the U.S., as well as studies addressing various factors which possibly play an important role in Hispanic adolescent suicidal behavior, were reviewed. Because the Hispanic adolescent suicide-attempt rate is estimated to be higher than other ethnic groups residing in the U.S., further studies in this area are greatly needed. This study hopes to fulfill a part of this void.
CHAPTER 3

METHODOLOGY

Introduction

The data used for the current study came from the Avance study, the largest denominational survey conducted among Hispanic Seventh-day Adventists. This data was collected between April, 1993 and March, 1994. Following the design of the Valuegenesis study, the Avance study utilized a survey approach that included several common core questions in addition to specific topics relevant to Hispanic individuals (Hernandez, 1995). In turn, Valuegenesis had used several core questions that the Search Institute in Minnesota had developed earlier for a study of adolescents and adults in six major Protestant denominations (Dudley & Gillespie, 1992).

In order to collect all the data on such a broad range of topics (family life, church, education, culture and social issues, politics, death, women issues, acculturation, and several demographic factors), two different questionnaires were constructed by a research team directed by Hernandez (1995) as principal
investigator. The focus of my study was the adolescent sample (13 to 21-year-olds) of the Avance survey. I wanted to examine acculturation, family, religion, and some demographic variables in attempting to differentiate suicide attempters and nonattempters in the selected sample. Permission was obtained to use the Avance data (Appendix A).

**Sampling Procedures and Population**

For the complete Avance survey, a total of 80 Hispanic churches was initially selected and stratified by church size and by region across the North American Division of the Seventh-day Adventist Church (NAD). A total of 77 Hispanic churches actually participated, representing a participation rate of 96% with a total sample of 3,306 respondents including adults (n=1,998) and youth (n=1,308). In 1994, the year of the Avance survey, the Hispanic membership in the NAD was estimated at 80,000. Thus it is believed that this sample is a fairly accurate representation of the total Hispanic SDA membership in the NAD (Hernandez, 1995). See Appendix C for further details in sampling procedures for the Avance survey.

The Avance survey for both adults and youth was based on anonymous and confidential questionnaire responses, which included a set of common core questions in addition
to specific adult and youth questions. Surveys were distributed at congregational "youth society meetings." These youth meetings are held regularly at Hispanic SDA churches where both youth and adults are in attendance. Any adult (25 or older) who agreed to participate responded to 302 questions on the Adult Survey. Any youth (25 years or younger) who agreed to participate responded to 292 questions on the Youth Survey. Both questionnaires were written in English and Spanish (see a sample page in Appendix B). Pastors from the selected Hispanic churches coordinated the project at their church sites. Each pastor was given a survey to determine whether the group that was present at the "youth society meeting" was representative of the church membership. Once the Avance questionnaires were answered and returned to the principal investigator, they were examined to ensure that the data were usable (see Appendix C for more details).

The adolescent population of the Avance youth sample, which was the focus of my study, was identified using item #77 from the Avance survey. Item #77 asked: "How old are you?" From the possible responses, three age ranges were selected to be included in the sample of this study: 1 = 13 or less, 2 = 14-17, and 3 = 18-21. The preliminary adolescent sample consisted of 905 adolescents. All cases that showed no responses in gender or suicide attempt (Item
variables were eliminated from the preliminary sample. As a result of this elimination, the final sample consisted of 869 adolescents. There were 380 males and 489 females. Some demographic data are presented in Table 1.

Data selected from the Avance survey were used to find differences between two groups in the adolescent sample that were (1) Hispanic SDA adolescents who reported making a suicide attempt and (2) Hispanic SDA adolescents who did not report suicide attempts. The subjects were adolescents in a church-based setting (as opposed to adolescents hospitalized in psychiatric units for attempting to commit suicide) who identified themselves with the Seventh-day Adventist Church.

**Instrumentation**

For the Avance survey, several scales were created and assessed using standard validity and reliability tests by a research team. The research team consisted of eight Adventist scholars and other research consultants (Appendix C), with the support from V. Bailey Gillespie, director of the Valuegenesis Project (Hernandez, 1995). Some of the scales used in the Avance survey had been validated with other Christian populations (Benson & Donahue, 1990) and with Valuegenesis for the SDA church (Dudley & Gillespie, 1992).
Table 1

Adolescent Sample by Levels of Age, Gender, Family Status, and Generation in the U.S.

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>869</td>
<td>100</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 or less</td>
<td>152</td>
<td>17.5</td>
</tr>
<tr>
<td>14 - 17</td>
<td>409</td>
<td>47.1</td>
</tr>
<tr>
<td>18 - 21</td>
<td>308</td>
<td>35.4</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>380</td>
<td>43.7</td>
</tr>
<tr>
<td>Female</td>
<td>489</td>
<td>56.3</td>
</tr>
<tr>
<td>Family Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intact</td>
<td>598</td>
<td>68.8</td>
</tr>
<tr>
<td>Non-intact</td>
<td>271</td>
<td>31.2</td>
</tr>
<tr>
<td>Generation in the U.S.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1\textsuperscript{st} gen.</td>
<td>459</td>
<td>52.8</td>
</tr>
<tr>
<td>2\textsuperscript{nd} gen.</td>
<td>283</td>
<td>32.6</td>
</tr>
<tr>
<td>3\textsuperscript{rd} gen.</td>
<td>16</td>
<td>1.8</td>
</tr>
<tr>
<td>4\textsuperscript{th} gen.</td>
<td>67</td>
<td>7.7</td>
</tr>
<tr>
<td>Don't know</td>
<td>44</td>
<td>5.1</td>
</tr>
</tbody>
</table>

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In addition to the already validated scales and items used in Valuegenesis and church surveys (i.e., family, education, sexuality, substance abuse, friendship, religious experience), the Avance survey included topics pertaining specifically to the Hispanic population (i.e., ethnic, culture, and language issues, youth afternoon meetings, social mobility). All these scales and items were selected according to the Hispanic literature research. In the original youth sample of the Avance study, scales that did not achieve a reliability of .60 were not retained (Hernandez, personal communication, March 12, 1996). The criteria used in scale selection for the present study was a reliability coefficient of .70 or higher (Gable & Wolf, 1993).

From the original scales prepared and validated by the Avance research team, three measures were used for this investigation: the Short Acculturation Scale, the Family Cohesion Scale, and the Parental Role Model Scale. In this study, the Parental Role Model Scale was called the Parental Religiosity Role Model Scale. One scale defined in the Avance study as Religious Maturity Scale was modified for use in this study as proposed by Thayer (1993) and became the Thayer Short-form Faith Maturity Scale. In addition to these scales, single items were selected to measure family abuse, church attendance, church climate,
gender, generation in the U.S., and family status. Psychometric information about the scales is given in the section “Independent Variables” of this chapter. All variables are detailed in Appendix D.

Research Variables

Dependent Variable—Suicide Attempt

The dependent variable used in this study was called Suicide Attempt, a dichotomous variable created in the Avance study from item #178. Item #178 measured self-reported suicide attempts as follows: In the last twelve months, have you ever tried to kill yourself? The possible answers included: No; Yes, once; Yes, twice; Yes, more than two times. Then, it was dichotomized and coded: Group 1 = 1 and included all respondents answering “No.” Group 2 = 2 and included all those answering “Yes.” For this study, how many times the adolescent attempted to kill himself or herself was not considered, but only that he or she had made an attempt. As a result of the separation into two groups, 104 adolescents out of 869 (12% of the sample) had attempted suicide at least once in the 12 months preceding the survey.
Independent Variables

Acculturation

The Short Acculturation Scale for Hispanics was developed by Marin, Sabogal, Marin, Otero-Sabogal, and Perez-Stable (1987). This scale consists of 12 items. Separate factor analyses of the responses of 363 Hispanics and 228 non-Hispanic Caucasians produced three factors: Language Use and Ethnic Loyalty (5 items), Media (3 items), and Ethnic Social Relations (4 items). The alpha reliability coefficient for the 12 common items was .92. Language factor had an alpha of .90, Media had an alpha of .86, and Ethnic Social Relations had an alpha of .78. Validity was tested by assessing the respondents' length of residence in the U.S., generation in the United States, and the subjects identifying themselves as Hispanics. Since the language-based factor accounted for approximately 55% of the variance, it was suggested that the language factor alone could be used as a valid and reliable measure. This scale had been used in more than 100 different studies on Hispanics in the United States (i.e., Barona & Miller, 1994; Norris, Ford, & Bova, 1996). The Avance study used only four items of the scale (out of five)—given its brevity—while keeping its reliability and validity.

The Short Acculturation Scale (Language Use Subscale) separated the respondents into two groups based on levels
of acculturation: (1) Those who score a mean of 2.99 and above on the range of 1 to 5 are considered highly acculturated and (2) those who score below 2.99 are considered low acculturated. The standardized Cronbach’s alpha reliability coefficient for this scale with this sample was .85. See Appendix D for the complete scale.

**Family**

The family environment included 2 scales, Family Cohesion Scale and Parental Religious Role Model Scale, and single items to measure Abuse (verbal, physical, and sexual).

Family Cohesion was measured with a five-item scale rated on a 5-point, Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Each of the items was stated positively; therefore, higher numbers represented higher levels of family unity or cohesion and vice versa. A sample item was: “My parents give me help and support when I need it” (see Appendix D for a complete listing of items and format response). The standardized Cronbach’s alpha reliability coefficient for this scale with this sample was .86.

Parental Religiosity Role Model was measured with a three-item scale rated on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).
A sample item was: "My parents are good examples of the Christian life" (see Appendix D for the complete scale). Items were stated positively, therefore, higher numbers represented higher levels of parental religiosity. The standardized Cronbach's alpha reliability coefficient for this scale with this sample was .84.

Abuse was measured with three separate items (verbal, physical, and sexual abuse), each divided into two parts. First, the adolescents were asked if they had ever experienced abuse. This question were answered by choosing 1 point on a 5-point Likert-type scale (Never, Rarely, Some of the time, Very often, and Almost all the time). The results were rated 1 = Yes (presence of abuse) and 2 = No (absence of abuse). Next, in the second part of the item, subjects were asked to indicate the perpetrator (i.e., parents, spouse, close relative, friend). Parents and close relatives were selected to be investigated in the present study (see Appendix D for the listing of the three abuse items).

Religion

The religion area included two single items, Church Attendance and Warm Church Climate, and the Thayer Short-form Faith Maturity Scale.

Church attendance has often been used as a measure of
religiosity in studies related to suicide attempts (Ng, 1996; Sorenson & Golding, 1988b). Church attendance is seen as a necessary condition for developing networks with co-religionists (Stack & Wasserman, 1992) and correlates with religious beliefs (Stack, 1985). In the current study, church attendance was measured with item #86, "How often do you attend to church" with a range response from 1 to 6 (see Appendix D for the complete response format).

Aoki and Turk (1997) suggested that although church attendance is a relevant measure and indicator of religiosity, it fails "to appreciate the meaning of faith and the intrinsic value of religion" (p. 277). Religiosity includes a concept of faith maturity as an essential religious commitment indicator (Dudley, 1994). In this study, Faith Maturity was measured by Thayer's Short-form scale (1993), an eight-item scale. The original Faith Maturity Scale was developed from 1988 to 1990 by the Search Institute for a national study of six major Protestant denominations. It consisted of 38 questions embracing two overall themes: the vertical theme, that is, the relationship with God, and the horizontal theme, that is, the devotion to serving others (Dudley, 1994). The Valuegenesis study, a major Seventh-day Adventist Church study conducted in 1989, used this 38-item scale. Thayer (1993) disputed the validity of the Faith Maturity Scale.
for Seventh-day Adventists. Then, he developed the 15-item Thayer Long-form Scale. After developing this long-form scale, the 12-item Search-Valuegenesis short-form scale (known as the Donahue scale) was used as the beginning point for constructing the Thayer Short-form Scale. Thayer (1993) removed four items to increase the reliability coefficient, leaving no items with an item-scale correlation below .50. The remaining eight items formed the Thayer Short-form Scale (see Appendix D for the complete listing and format).

Although, the Avance study used the 12-item scale (the Donahue scale), the Thayer Short-form Scale (8 items) was selected for the current study. It appears that faith maturity among the Seventh-day Adventist youth population is better defined as a relationship with God only, called a "vertical" relationship (Dudley & Gillespie, 1992; Thayer, 1993). The standardized Cronbach's alpha reliability coefficient for this scale with this sample was .83.

Warm Church Climate seeks to measure the extent to which adolescents perceive their leaders and congregation as warm, friendly, and where they feel at home. In this study, Warm Church Climate was measured with item #66, "The leaders at my church are warm and friendly toward the youth." The responses ranged from 1 (strongly disagree) to 5 (strongly agree) (see Appendix D).
Gender

Gender was measured with item #13 and coded as 1 = male and 2 = female.

Other Demographics

Family status was measured with item #187 “What is your family status?” (see Appendix D for response format). For this study, the revised value format was: 1 = intact family (lived with two parents) and 2 = non-intact family (parents are divorced or separated).

Generation in the U.S. was measured with the item #105 “Were each of the following people born in the United States?” (see Appendix D for response format). Codes were 1 = first generation, 2 = second generation, 3 = third generation, and 4 = fourth generation.

See Table 1 for percentages of adolescents in this sample by level of age, gender, family status, and generation in the U.S.

Hypotheses and Statistical Analysis

The following null hypotheses were tested:

Hypothesis 1. There is no statistically significant relationship between acculturation levels and proneness to attempting suicide.

Hypothesis 1 was tested by Chi-square analysis.
Hypothesis 2. There is no statistically significant difference between the mean level of family cohesion of those who have attempted suicide and those who have not attempted suicide.

Hypothesis 3. There is no statistically significant difference in perception of parental religiosity between those who have attempted suicide and those who have not attempted suicide.

Hypotheses 2 and 3 were tested by the t test for means of two independent samples.

Hypothesis 4. There is no statistically significant difference on abuse between those who have attempted suicide and those who have not attempted suicide.

Hypothesis 4 was tested by Chi-square for each type of abuse: verbal or emotional, sexual, and physical.

Hypothesis 5. There is no statistically significant difference in levels of faith maturity between those who have attempted suicide and those who have not attempted suicide.

Hypothesis 5 was tested by the t test for means of two independent samples.

Hypothesis 6. There is no statistically significant relationship between frequency of church attendance and proneness to attempting suicide.
Hypothesis 6 was tested by Chi-square analysis.

**Hypothesis 7.** There is no statistically significant difference in perception of church climate between those who have attempted suicide and those who have not attempted suicide.

Hypothesis 7 was tested by the *t* test for means of two independent samples.

**Hypothesis 8.** There is no statistically significant relationship between gender and proneness to attempting suicide.

**Hypothesis 9.** There is no statistically significant relationship between family status (Intact vs. Non-intact families) and proneness to attempting suicide.

**Hypothesis 10.** There is no statistically significant relationship between generation in the U.S. and proneness to attempting suicide.

Hypotheses 8, 9, and 10 were tested by Chi-square analysis.

**Hypothesis 11.** There is no linear combination of the variables acculturation level, family cohesion, parental religiosity, abuse, church attendance, faith maturity, gender, generation level, and family status that significantly discriminates between those who have attempted suicide and those who have not attempted suicide.
Hypothesis 11 was tested by discriminant analysis.
All hypotheses were tested at the .05 level.

Summary

This chapter presented the Avance survey, data collection, description of the population and sample selection, instrumentation, research hypotheses, and the statistical procedures used in the data analysis.
CHAPTER 4

PRESENTATION AND ANALYSIS OF DATA

The purpose of this study was to identify some characteristics of Hispanic SDA adolescent suicide attempters. Accordingly, this chapter presents a description of the adolescent sample and the results of testing the null hypotheses.

Descriptive Analysis of the Sample

The target population of the study was Hispanic SDA adolescents living in the United States. The sample was taken from the youth sample of the Avance study and based on three age groups: "13 or less," "14 to 17," and "18 to 21." All adolescents in these three age groups were categorized as suicide attempters or nonattempters. Of the 869 adolescents in the sample, 104 (12%) had attempted suicide at least once in the last 12 months prior to the Avance survey. The distribution of attempters was not significantly different across the three age groups ($X^2_{(2)} = .976, p = .323$). Of the 104 adolescents who had attempted suicide, female adolescents ($n=69$) outnumbered males ($n=35$). Table 2 presents percentages of suicide attempts
by levels of age and gender.

Further, adolescents who had attempted suicide reported different periods of time living in the United States. Approximately 30% of the attempters had lived in the U.S. for at least 5 years \((n=31)\); 38% of them had lived in the United States at least 6 years and more \((n=39)\); approximately 30% of the attempters \((n=32)\) were born in the U.S.; and about 2% \((n=2)\) of them provided no responses.

The adolescent sample responding to this study also differed in country of origin. Among the attempters, 41% \((n=43)\) were Mexicans or Mexican Americans; 3% \((n=3)\) were Cubans or Cuban Americans; 11% \((n=11)\) were Puerto Ricans or Puerto Rican Americans; 5% \((n=5)\) were Dominicans; 21% \((n=22)\) were Central Americans; 7% \((n=7)\) were South Americans; and 12% \((n=13)\) indicated their origin as Other or did not respond.

Since the sample came from SDA churches, the distribution of type of school attending \((\text{Christian/SDA or public})\) and education received \((\text{some SDA or none})\) is also included in Table 2 as information of interest to Christian leaders.
Table 2

Percentages of Attempters by Age, Gender, Type of School, and SDA Education Received

<table>
<thead>
<tr>
<th>Variable</th>
<th>Suicide Attempters</th>
<th>Non-Attempters</th>
<th>Combined Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Total Sample</td>
<td>104</td>
<td>12&lt;sup&gt;a&lt;/sup&gt;</td>
<td>765</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 or less</td>
<td>18</td>
<td>12</td>
<td>134</td>
</tr>
<tr>
<td>14 - 17</td>
<td>56</td>
<td>14</td>
<td>353</td>
</tr>
<tr>
<td>18 - 21</td>
<td>30</td>
<td>10</td>
<td>278</td>
</tr>
<tr>
<td>Gender&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>35</td>
<td>9</td>
<td>345</td>
</tr>
<tr>
<td>Female</td>
<td>69</td>
<td>14</td>
<td>420</td>
</tr>
<tr>
<td>Type of School</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDA/Christian</td>
<td>23</td>
<td>11</td>
<td>182</td>
</tr>
<tr>
<td>Public</td>
<td>64</td>
<td>12</td>
<td>476</td>
</tr>
<tr>
<td>Not in school</td>
<td>12</td>
<td>11</td>
<td>97</td>
</tr>
<tr>
<td>No response</td>
<td>15</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>SDA Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some</td>
<td>34</td>
<td>11</td>
<td>280</td>
</tr>
<tr>
<td>None</td>
<td>68</td>
<td>13</td>
<td>475</td>
</tr>
<tr>
<td>No response</td>
<td>12</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>Percentages in the first two columns are based horizontally.
<sup>b</sup>Percentages in this column are based vertically.
<sup>c</sup>Gender was a variable included in the statistical analysis.
Statistical Analysis for Hypothesis Testing

The statistical analysis of the data was done in two stages. First, hypotheses 1 to 10 were tested by Chi-square or by the $t$ test for means of two independent samples according to the type of variables involved in the analysis. Finally, hypothesis 11 used a multivariate technique, discriminant analysis, to determine which factors effectively differentiated between the two groups in this study (attempters and nonattempters). All hypotheses were tested at the .05 level of significance.

Hypothesis 1

Hypothesis 1. There is no statistically significant relationship between acculturation levels and proneness to attempting suicide.

This hypothesis was tested by Chi-square analysis.

Although suicide attempters reported higher levels of acculturation (67.3%) than the nonattempters (58%), statistical results showed that there was a nonsignificant difference between levels of acculturation and proneness to attempting suicide at the .05 level ($X^2_{(1)} = 3.24$, $p = .07$). With 1 df, the critical value of Chi-square at the .05 level was 3.841. Since the Chi-square value of 3.24 was below the critical value and nonsignificant, hypothesis 1 was retained.
Hypothesis 2

Hypothesis 2. There is no statistically significant
difference between the mean level of family cohesion of
those who have attempted suicide and those who have not
attempted suicide.

This hypothesis was tested by the t test for means of
two independent samples. With 109 degree of freedom, the
critical value of t at the .05 level was 3.320.

Statistical results showed that there was a
significant difference between means of family cohesion of
suicide attempters ($M=3.31$) and nonattempters ($M=3.87$).
The attempters perceived significantly less family cohesion
than the nonattempters ($t = 5.71, p < .0005$). Therefore,
hypothesis 2 was rejected.

See Table 3 for t test results of individual items of
the family cohesion scale. Suicide attempters, in a
consistent way, reported significantly lower family
cohesion than the nonattempters across all the items.

Hypothesis 3

Hypothesis 3. There is no statistically significant
difference in perception of parental religiosity between
those who have attempted suicide and those who have not
attempted suicide.

This hypothesis was tested by the t test for means of
<table>
<thead>
<tr>
<th>Statement</th>
<th>Attempters</th>
<th>Nonattempters</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Family Cohesion (6 items)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 188 My family life is happy.</td>
<td>3.31</td>
<td>1.12</td>
<td>4.01</td>
<td>.94</td>
</tr>
<tr>
<td>Item 189 There is a lot of love in my family.</td>
<td>3.49</td>
<td>1.13</td>
<td>4.05</td>
<td>.94</td>
</tr>
<tr>
<td>Item 190 I get along well with my parents.</td>
<td>3.54</td>
<td>1.16</td>
<td>4.08</td>
<td>.93</td>
</tr>
<tr>
<td>Item 191 My parents give me help and support when I need it.</td>
<td>3.59</td>
<td>1.18</td>
<td>4.19</td>
<td>.94</td>
</tr>
<tr>
<td>Item 192 My parents often tell me they love me.</td>
<td>3.18</td>
<td>1.35</td>
<td>3.92</td>
<td>1.11</td>
</tr>
<tr>
<td>Item 193 I cherish the moments when my whole family are together.</td>
<td>3.87</td>
<td>1.26</td>
<td>4.31</td>
<td>.95</td>
</tr>
<tr>
<td>Parental Religiosity Role Model (3 items)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 202 My parents are good examples of the Christian life.</td>
<td>3.28</td>
<td>1.19</td>
<td>3.68</td>
<td>1.10</td>
</tr>
<tr>
<td>Item 203 My parents live up to the standards of the church.</td>
<td>3.36</td>
<td>1.24</td>
<td>3.78</td>
<td>1.12</td>
</tr>
<tr>
<td>Item 204 My parents actively participate in the life of the church.</td>
<td>3.43</td>
<td>1.17</td>
<td>3.72</td>
<td>1.22</td>
</tr>
</tbody>
</table>

Note. Range of scores is from 1 (strongly disagree) to 5 (strongly agree).
* p < .05.
two independent samples.

On this measure of the parental religiosity role model scale, suicide attempters attained a mean score of 3.36 and nonattempters attained a mean score of 3.73. Since Levene's test for equality of variances is nonsignificant ($p = .470$), the pooled $t$ value was used to determine significance. The results showed that attempters and nonattempters differed significantly in terms of the parental religiosity factor ($t = 3.28, p = .001$). Therefore, hypothesis 3 was rejected.

See Table 3 for $t$ test results across all the indicators of the scale. Suicide attempters consistently reported significantly lower parental religiosity than did the nonattempters across all the indicators.

Hypothesis 4

Hypothesis 4. There is no statistically significant relationship between abuse and proneness to attempting suicide.

This hypothesis was tested by Chi-square analysis. Tests were run separately for each type of abuse (physical, sexual, and verbal). Table 4 presents results of Chi-square for each type of abuse. Overall suicide attempters experienced significantly more verbal abuse than did the nonattempters ($X^2 (11) = 8.24, p = .004$), more physical
Table 4

Hispanic SDA Adolescent Abuse

<table>
<thead>
<tr>
<th>Type of Abuse</th>
<th>Suicide Attempters (n = 104)</th>
<th>Non-Attempters (n = 765)</th>
<th>Chi-square</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 165 Verbal Abusea</td>
<td>%</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;No&quot;</td>
<td>14.4</td>
<td>27.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Yes&quot;</td>
<td>85.6</td>
<td>72.4</td>
<td>8.238</td>
<td>.004*</td>
</tr>
<tr>
<td>Item 166 Physical Abuseb</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;No&quot;</td>
<td>42.3</td>
<td>62.5</td>
<td>15.538</td>
<td>.0001*</td>
</tr>
<tr>
<td>&quot;Yes&quot;</td>
<td>57.7</td>
<td>37.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 167 Sexual Abusec</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;No&quot;</td>
<td>59.6</td>
<td>77.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Yes&quot;</td>
<td>40.4</td>
<td>22.2</td>
<td>16.374</td>
<td>.0001*</td>
</tr>
</tbody>
</table>

Note. Degrees of freedom = 1. Item numbers are from the Avance study questionnaire.

a Defined as being humiliated, told that you were "no good," being regularly "put down," made to feel worthless.
b Defined as beaten until one had bruises or other marks, or being pinched, or slapped in the face.
c Defined as being touched or fondled in sexual areas of the body, raped or seduced, or pressured into having sex against your will.

* p < .05.
abuse ($X^2_{(1)} = 15.51, p = .0001$), and also experienced
significantly more sexual abuse than the nonattempters ($X^2_{(1)} = 16.37, p = .0001$). Therefore, hypothesis 4 was rejected.

Although overall abuse (any type of abuse regardless by whom was inflicted) was significant in testing hypothesis 4, when Chi-square analyses were run separately for each kind of abuse inflicted "by parents" and "close relatives," only verbal abuse by parents showed significant results ($X^2_{(1)} = 5.50, p = .02$).

Table 5 presents results of each type of abuse inflicted by parents and by close relatives.

Hypothesis 5

Hypothesis 5. There is no statistically significant difference in levels of faith maturity between those who have attempted suicide and those who have not attempted suicide.

This hypothesis was tested by the t test for means of two independent samples.

On the measure of Faith Maturity Scale, suicide attempters attained a mean score of 3.55 and nonattempters attained a mean score of 3.74. Suicide attempters differed significantly from the nonattempters in terms of levels of faith maturity at the .05 level ($t = 2.32, p = .022$). Therefore, hypothesis 5 was rejected.
Table 5  
*Abuse as Defined by Parents and Close Relatives*

<table>
<thead>
<tr>
<th>Type of Abuse</th>
<th>Suicide Attempters</th>
<th>Non-Attempters</th>
<th>Chi-Square</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Item 165 Verbal Abuse</strong></td>
<td>n = 85</td>
<td>n = 531</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Parents</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;No&quot;</td>
<td>65.9%</td>
<td>77.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Yes&quot;</td>
<td>34.1%</td>
<td>22.4%</td>
<td>5.502</td>
<td>.02*</td>
</tr>
<tr>
<td>By Close Relatives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;No&quot;</td>
<td>83.5%</td>
<td>86.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Yes&quot;</td>
<td>16.5%</td>
<td>13.9%</td>
<td>.384</td>
<td>.535</td>
</tr>
<tr>
<td><strong>Item 166 Physical Abuse</strong></td>
<td>n = 68</td>
<td>n = 324</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Parents</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;No&quot;</td>
<td>58.8%</td>
<td>58.6%</td>
<td>.001</td>
<td>.978</td>
</tr>
<tr>
<td>&quot;Yes&quot;</td>
<td>41.2%</td>
<td>41.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Close Relatives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;No&quot;</td>
<td>86.8%</td>
<td>89.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Yes&quot;</td>
<td>13.2%</td>
<td>10.8%</td>
<td>.334</td>
<td>.563</td>
</tr>
<tr>
<td><strong>Item 167 Sexual Abuse</strong></td>
<td>n = 48</td>
<td>n = 186</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Parents</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;No&quot;</td>
<td>85.4%</td>
<td>93.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Yes&quot;</td>
<td>14.6%</td>
<td>7.0%</td>
<td>2.815</td>
<td>.093</td>
</tr>
<tr>
<td>By Close Relative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;No&quot;</td>
<td>79.0%</td>
<td>79.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Yes&quot;</td>
<td>21.0%</td>
<td>20.8%</td>
<td>.000</td>
<td>.984</td>
</tr>
</tbody>
</table>

*Note.* Degrees of freedom = 1. Item numbers are from the Avance study questionnaire.  
* p < .05.
See Table 6 for t test results for the eight items of the Faith Maturity scale. Although suicide attempts consistently reported lower mean scores than nonattempters across all the indicators of the scale, only three items showed significant differences. They were: (1) I seek opportunities to help me grow spiritually, (2) My life is committed to Jesus Christ, and (3) I have a real sense that God is guiding me. The suicide attempters, on the whole, felt these items were less true for them than the nonattempters on the whole felt.

Hypothesis 6

Hypothesis 6. There is no statistically significant relationship between frequency of church attendance and proneness to attempting suicide.

This hypothesis was tested by Chi-square analysis.

Eight percent of suicide attempters attended church “less than once a week,” 34% of suicide attempters attended church “about once a week,” and 59% of them attended church “more than once a week.”

Statistical results showed that suicide attempters did not differ significantly from nonattempters on frequency of church attendance ($X^2_{(2)} = .795, p = .672$). On the basis of these results, hypothesis 6 was retained.
Table 6

Results of Individual Items of Faith Maturity Scale

<table>
<thead>
<tr>
<th>Statement</th>
<th>Suicide Attempters</th>
<th>Non-Attempters</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1 I help others with religious questions and struggles.</td>
<td>2.96 1.07</td>
<td>2.97 1.04</td>
<td>.046</td>
<td>.964</td>
</tr>
<tr>
<td>Item 2 I seek opportunities to help me grow spiritually.</td>
<td>3.20 1.22</td>
<td>3.46 1.04</td>
<td>2.020</td>
<td>.046*</td>
</tr>
<tr>
<td>Item 5 I feel God's presence in my relationships with other people.</td>
<td>3.36 1.17</td>
<td>3.44 1.04</td>
<td>.720</td>
<td>.473</td>
</tr>
<tr>
<td>Item 6 My life is filled with meaning and purpose.</td>
<td>3.82 1.23</td>
<td>4.00 1.07</td>
<td>1.454</td>
<td>.148</td>
</tr>
<tr>
<td>Item 9 My life is committed to Jesus Christ</td>
<td>3.79 1.19</td>
<td>4.12 1.02</td>
<td>2.689</td>
<td>.008*</td>
</tr>
<tr>
<td>Item 10 I talk with other people about my faith.</td>
<td>3.07 1.29</td>
<td>3.29 1.13</td>
<td>1.691</td>
<td>.093</td>
</tr>
<tr>
<td>Item 11 I have a real sense that God is guiding me.</td>
<td>3.96 1.19</td>
<td>4.22 1.03</td>
<td>2.069</td>
<td>.041*</td>
</tr>
<tr>
<td>Item 12 I am spiritually moved by the beauty of God's creation.</td>
<td>4.25 1.03</td>
<td>4.42 .94</td>
<td>1.561</td>
<td>.121</td>
</tr>
</tbody>
</table>

Note. Range of scores is from 1 to 5. Items numbers are from the Avance survey.

* p < .05.
Hypothesis 7

Hypothesis 7. There is no statistically significant difference in perception of a warm church climate between those who have attempted suicide and those who have not attempted suicide.

This hypothesis was tested by the t test for means of two independent samples.

Results showed that there was a significant difference in perception of a warm church climate between suicide attempters (\( M = 3.59 \)) and nonattempters (\( M = 4.05 \)) with a mean difference of .46 (\( t = 3.62, p < .0005 \)). Since suicide attempters differed significantly in perception of a less warm church climate from the nonattempters, hypothesis 7 was rejected.

Hypothesis 8

Hypothesis 8. There is no statistically significant relationship between gender and proneness to attempting suicide.

This hypothesis was tested by Chi-square analysis.

A significantly larger proportion of females (14.1\%) than males (9.2\%) reported proneness to attempting suicide (\( X^2(1) = 4.87, p = .027 \)). With 1 df, the critical value of Chi-square at the .05 level was 3.841. Since the Chi-
square value of 4.87 was above the critical value and
significant, hypothesis 8 was rejected.

**Hypothesis 9**

Hypothesis 9. There is no statistically significant
relationship between family status (intact vs. non-intact)
and proneness to attempting suicide.

This hypothesis was tested by Chi-square analysis.

Results showed that a significantly larger proportion
of suicide attempters (46%) than nonattempters (29%) were
likely to come from non-intact families ($X^2 = 12.33$, $p =
.0004$). Therefore, hypothesis 9 was rejected.

**Hypothesis 10**

Hypothesis 10. There is no statistically significant
relationship between generation in the U.S. and proneness
to attempting suicide.

This hypothesis was tested by Chi-square analysis.

Ten percent of adolescents classified as the first
generation ($n=47$ out of $459$) reported attempting suicide;
13% of those adolescents classified as the second
generation ($n=37$ out of $283$) reported attempting suicide;
19% of those of the third generation ($n=3$ out of $16$)
reported attempting suicide; and 13% of those of the fourth
generation ($n=9$ out of $67$) reported attempting suicide.

Five percent of the whole sample ($n=44$ out of $869$) did not
respond to this questions and were, thus, not categorized into a generation.

Of those who responded to this question, statistical results showed that suicide attempters did not differ significantly from nonattempters across the four generation groups ($X^2(3) = 2.44, p = .487$). Therefore, hypothesis 10 was retained.

Table 7 lists all the variables measured in this study that were tested by Chi-square analysis, and reports a summary of the results.

Table 8 lists all variables measured in this study that were tested by the $t$ test for means of two independent samples, and reports the results.

Table 7

Variables Tested by Chi-square

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>Chi-square</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acculturation</td>
<td>1</td>
<td>3.24</td>
<td>.072</td>
</tr>
<tr>
<td>Abuse:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal</td>
<td>1</td>
<td>8.24</td>
<td>.004*</td>
</tr>
<tr>
<td>Physical</td>
<td>1</td>
<td>15.54</td>
<td>.0001*</td>
</tr>
<tr>
<td>Sexual</td>
<td>1</td>
<td>16.37</td>
<td>.0001*</td>
</tr>
<tr>
<td>Church attendance</td>
<td>2</td>
<td>.79</td>
<td>.672</td>
</tr>
<tr>
<td>Gender</td>
<td>1</td>
<td>4.87</td>
<td>.027*</td>
</tr>
<tr>
<td>Generation</td>
<td>3</td>
<td>2.44</td>
<td>.487</td>
</tr>
<tr>
<td>Family Status</td>
<td>1</td>
<td>12.33</td>
<td>.0004*</td>
</tr>
</tbody>
</table>

* $p < .05$. 

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Table 8

Variables Tested by t Test for Means of Two Independent Samples

<table>
<thead>
<tr>
<th>Variables</th>
<th>Range</th>
<th>Suicide Attempters (n=104)</th>
<th>Non-Attempters (n=765)</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Cohesion</td>
<td>1 - 5</td>
<td>3.30 .89</td>
<td>3.87 .80</td>
<td>5.71</td>
<td>109</td>
<td>.000*</td>
</tr>
<tr>
<td>Parental Religiosity</td>
<td>1 - 5</td>
<td>3.36 1.07</td>
<td>3.73 1.00</td>
<td>3.28</td>
<td>809</td>
<td>.001*</td>
</tr>
<tr>
<td>Faith Maturity</td>
<td>1 - 5</td>
<td>3.55 .80</td>
<td>3.74 .69</td>
<td>2.32</td>
<td>125</td>
<td>.022*</td>
</tr>
<tr>
<td>Warm Church Climate</td>
<td>1 - 5</td>
<td>3.59 1.22</td>
<td>4.05 1.02</td>
<td>3.62</td>
<td>120</td>
<td>$.0005*</td>
</tr>
</tbody>
</table>

Note. df = adjusted for unequal or equal variances.
*p < .05.
Hypothesis 11

Hypothesis 11. There is no linear combination of the variables acculturation level, family cohesion, parental religiosity, abuse, church attendance, faith maturity, gender, generation level, and family status that significantly discriminates between those who have attempted suicide and those who have not attempted suicide.

This hypothesis was tested by discriminant analysis.

Discriminant analysis is useful when the goal is to identify variables that distinguish between groups and develops a procedure for predicting group membership for new cases whose group membership is undetermined. Direct method (all variables together) was used for variable selection. The discriminant function was significant ($X^2_{(12)} = 61.540, p < .0005$). Table 9 gives the standardized discriminant function coefficients for the variables. A common procedure is to note initially all those coefficients which are at least 50% of the maximum coefficient, and others which are close to this level. Six weights are ranked in Table 9.

The means on the discriminant function were .832 for the suicide attempters and -.104 for the nonattempters.

The function indicates that an Hispanic SDA adolescent who perceived less family cohesion, who was highly acculturated, who perceived a less warm church climate, was
female, and had suffered sexual and physical abuse was more likely to attempt suicide.

Table 9

*Standardized Discriminant Function Coefficients, Summary Table*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Function 1</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acculturation</td>
<td>.307</td>
<td>2</td>
</tr>
<tr>
<td>Family Cohesion</td>
<td>-.640</td>
<td>1</td>
</tr>
<tr>
<td>Parental Religiosity Role Model</td>
<td>-.007</td>
<td></td>
</tr>
<tr>
<td>Verbal Abuse</td>
<td>-.025</td>
<td></td>
</tr>
<tr>
<td>Physical Abuse</td>
<td>.241</td>
<td>6</td>
</tr>
<tr>
<td>Sexual Abuse</td>
<td>.242</td>
<td>5</td>
</tr>
<tr>
<td>Church Attendance</td>
<td>.167</td>
<td></td>
</tr>
<tr>
<td>Faith Maturity</td>
<td>.055</td>
<td></td>
</tr>
<tr>
<td>Warm Church Climate</td>
<td>-.298</td>
<td>3</td>
</tr>
<tr>
<td>Gender</td>
<td>.283</td>
<td>4</td>
</tr>
<tr>
<td>Family Status</td>
<td>.161</td>
<td></td>
</tr>
<tr>
<td>Generation in the U.S.</td>
<td>-.081</td>
<td></td>
</tr>
</tbody>
</table>
Table 10 shows the classification matrix produced by this discriminant function. It indicates that 64.4% of the suicide attempters and 71.4% of the nonattempters were correctly identified by this discriminant function.

Table 10

Classification Results

<table>
<thead>
<tr>
<th>Predicted Group Membership</th>
<th>1</th>
<th>2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonattempts</td>
<td>1</td>
<td>546</td>
<td>219</td>
</tr>
<tr>
<td>Attempters</td>
<td>2</td>
<td>37</td>
<td>67</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonattempts</td>
<td>1</td>
<td>71.4(^a)</td>
<td>28.6</td>
</tr>
<tr>
<td>Attempters</td>
<td>2</td>
<td>35.6</td>
<td>64.4(^b)</td>
</tr>
</tbody>
</table>

Note. 70.1% of original grouped cases were correctly classified.

\(^a\)71.4% of nonattempters were correctly classified.

\(^b\)64.4% of suicide attempters were correctly classified.
Summary

Analysis of scales or individual items using \( t \) tests for means of two independent samples indicated several variables with significant relationships with suicide attempts \( (p < .05) \).

Analysis of the categorical variables using Chi-square statistics also yielded some significant relationships with suicide attempts \( (p < .05) \).

Family cohesion, parental religiosity, abuse, faith maturity, warm church climate, gender, and family status were found as being significantly correlated with suicide attempts. (Refer to Table 7 for variables analyzed by Chi-square and Table 8 for all scales and individual items involved in the \( t \) test analysis.)

Discriminant analysis of the scales and individual items indicated that an Hispanic SDA adolescent who perceived less family cohesion, was high acculturated, who perceived a less warm church climate, was female, and who had suffered sexual and physical abuse was more likely to attempt suicide.
CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This final chapter summarizes briefly the problem and purpose of the study, the literature review, the methodology, and the results. Next, a discussion of the hypotheses is given, and conclusions are presented. Finally, suggestions are made for prevention and for future research.

Summary of the Problem

Although there is evidence that psychological problems or psychiatric syndromes are commonly present in suicidal behavior, these factors are not enough to establish the characteristics of suicide attempters. There are other important psychological and social factors found to be associated with suicide attempts, such as family variables, age, or gender.

Suicidal Hispanics, in general, and Hispanic Seventh-day Adventists, in particular, may face unique characteristics that are related to their sociocultural environment, such as acculturation, family functioning, and religiosity. Therefore, this study examined acculturation,
family, religion, and gender in the hope of identifying some of the characteristics of suicide attempters among Hispanic SDA adolescents.

**Summary of the Purpose of This Study**

This study's purpose was (1) to aid those interested in suicide prevention, and (2) to increase awareness and knowledge of Hispanic adolescent suicidal behavior in order to encourage Christian leaders to initiate educational prevention programs to reach this vulnerable population, and (3) to educate Hispanic adolescents and parents who live in family and church environments similar to those in the Hispanic SDA Church.

**Summary of the Literature Review**

In a report from the U.S. Department of Health and Human Services, it was stated that "one promising scientific approach to understanding and preventing suicide is through the identification of risk factors, or characteristics of individuals that are associated with an increased risk of suicide" (Alcohol, Drug Abuse, and Mental Health Administration, 1989, p. 19).

Over the past decade, several factors contributing to adolescent suicide have been identified such as: various demographics, family-related issues, sociocultural factors, and depression (Husain, 1990). Other risk factors found by
Zayas and Dyche (1995), after studying suicidal Puerto Rican females, included: the migration experience and network dislocation, the dynamic of acculturation, generational status (first, second, or later generation), and traditional Hispanic family processes that protect values that may be at odds with the majority culture.

Acculturation appears to be related to the Hispanic adolescent's well-being because it challenges cultural beliefs and values in diverse areas (e.g., dress, manners, language, diet). The term "acculturative stress" is used to describe the stress that results from the acculturation process, and which may result in several states such as depression, anxiety, alienation, identity confusion that may threaten their well-being (Williams & Berry, 1991). Hovey and King (1996) also suggest that some acculturating Hispanic adolescents experience such high levels of acculturative stress that they appear to be at great risk for depression and suicidal behavior (Hovey & King, 1996).

Certain family factors also have consistently been linked to suicidality. Family cohesion, abuse (verbal, physical, and sexual), and family status appear to be related to suicide attempts (Arensman & Kerkhof, 1996; Mennen, 1994; Queralt, 1993; Renaud et al., 1999; Stepakoff, 1998; Thorlindsson & Bjarnason, 1998). A review of the literature suggests the following:
1. Most adolescent suicide attempters perceived their families as being less cohesive, less affectionate, more disengaged, and also reported a lack of parental support during the time of the suicidal crisis (Miller et al., 1992).

2. Abuse has also been recognized as having harmful effects on the lives of the abused adolescent. Although similar findings on the consequences of sexual abuse have been reported for most youth (i.e., African Americans, Caucasians, Hispanics), Hispanic girls have showed more severe effects in depression, anxiety, and self-esteem than other ethnic groups (Mennen, 1994). All these factors appear to be associated with self-destructive behaviors, including suicide attempts (Deykin et al., 1985).

3. Adolescents who come from nonintact families (separated/divorced) appear to experience more stress than those who come from intact families, pushing these adolescents into performing adult responsibilities (Ng, 1996) and then into self-destructive behaviors that include suicide attempts (Wagner et al., 1995).

Religion appears to not only play an important role in shaping suicide acceptability (Stack, 1998), but even may reduce suicidal behavior (Hovey & King, 1997). It has been suggested that the church takes on a great significance for the Hispanic community in the United States when it becomes
part of the social support system that was left behind with immigration (Hernandez & Dudley, 1990). For the youth, it also appears to contribute to their sense of belonging and acceptance (Dudley & Gillespie, 1992), and reduces suicidal behavior since the adolescent feels valued and accepted by others (Berman, 1997).

Next, gender differences on suicidal behavior have been studied. Female adolescents continue to have higher suicide-attempt rates than do male adolescents (Andrews & Lewinsohn, 1992; Queralt, 1993; Vannatta, 1997; Wagner et al., 1995). For example, in one study among suicide attempters, females outnumbered boys at a 6:1 ratio (Queralt, 1993). It has been suggested that most cultures are more tolerant of men, than of women, to act in an aggressive way. In this context, men would have less need than women who attempt suicide, to vent their anger, or exhibit frustration (Queralt, 1993).

Finally, studies have looked at the generational status of an individual and found that it is connected to acculturation. Hispanics living in the United States the longest are often found to be highly acculturated (Padilla, 1980, 1995). Interestingly enough, in some studies immigrants or first generation Hispanics have been found to be at higher risk for suicidal behavior than later generations (Sorenson & Shen, 1996; Torres-Matrullo, 1980).
Other researchers suggest that first-generation Hispanics are not at greater risk for mental illness or suicide than other generations (Sorenson & Golding, 1988b). Despite these contradictory findings, it appears that adolescents who have lived in the United States the longest (second- or third-generation) appear to emerge more acculturated, have more tendencies toward destructive behavior, and possibly are at greater risk for suicide attempts (Hovey & King, 1996; Swanson et al., 1992).

Although Hispanic adolescent suicide attempts have been understudied, those studies that have been conducted, however, suggest that Hispanic adolescent suicide attempts are influenced by acculturation, family environment, religion, and gender. This study proposed to contribute to further understand suicide in relationship to Hispanic youth.

**Summary of the Methodology**

The data used for the current study came from the Avance study, the largest denominational survey conducted among Hispanic Seventh-day Adventists in the United States. This data was collected between April 1993 and March 1994. The Avance survey for both adults and youth was based on anonymous and confidential questionnaires presented in both English and Spanish. From the youth sample, three age
ranges were selected to be included in the sample of this study: 1 = 13 or less, 2 = 14-17, and 3 = 18-21. The final sample consisted of 869 adolescents, comprised of 380 males and 489 females.

From the original scales prepared and validated by the Avance research team, three measures were used for this investigation: the Short Acculturation Scale, the Family Cohesion Scale, and the Parental Religiosity Role Model Scale. Further, one scale defined in the Avance study as Religious Maturity Scale was modified for use in this study as proposed by Thayer (1993) and became the Faith Maturity Short-form Scale. In addition to these scales, single items were selected to measure adolescent abuse (verbal, physical, and sexual), church attendance, warm church climate, gender, generation in the U.S., and family status.

The dependent variable used in this study was a dichotomous variable created in the Avance study from item #178 called Suicide Attempt, which measured self-reported suicide attempts as follows: "In the last twelve months, have you ever tried to kill yourself?" The possible answers included: No; Yes, Once; Yes, Twice; Yes, More than two times. Then, it was dichotomized and coded: Group 1 = 1 and included all respondents answering "No." Group 2 = 2 and included all those answering "Yes."
Summary of the Results

Results are summarized in relation to the research questions and hypotheses.

Research question #1 asked, Is there a relationship between acculturation level and suicide attempts?, which led to the formulation of hypothesis 1.

Hypothesis 1 stated that there would be no statistically significant relationship between acculturation levels and proneness to attempting suicide. A Chi-square test was performed and the results were shown to be non-significant, therefore, hypothesis 1 was retained.

Research question #2 asked, Do suicide attempters experience less family cohesion than the nonattempters?, which led to the formulation of hypothesis 2.

Hypothesis 2 stated that there would be no statistically significant difference between the mean level of family cohesion of those who had attempted suicide and those who had not attempted suicide. This hypothesis was tested by the t test for means of two independent samples. Results showed that adolescent suicide attempters perceived significantly lower family cohesion than the nonattempters. Therefore, hypothesis 2 was rejected.

Research question #3 asked, Do suicide attempters perceive their parents lower in religiosity than the
nonattempters?, which led to the formulation of hypothesis 3.

Hypothesis 3 stated that there would be no statistically significant difference in perception of parental religiosity between those who had attempted suicide and those who had not attempted suicide. This hypothesis was tested by the t test for means of two independent samples. Results showed that suicide attempters perceived significantly lower parental religiosity than the nonattempters. Therefore, hypothesis 3 was rejected.

Research question #4 asked, Do suicide attempters experience more abuse than the nonattempters?, which led to the formulation of hypothesis 4.

Hypothesis 4 stated that there would be no statistically significant relationship between three types of abuse and proneness to attempting suicide. A Chi-square test was performed and results showed significant relationships in all three types of abuse (verbal, physical, and sexual). Suicide attempters suffered more abuse than the nonattempters. Hypothesis 4 was rejected.

Research question #5 asked, Are suicide attempters lower in faith maturity than the nonattempters?, which led to the formulation of hypothesis 5.

Hypothesis 5 stated that there would be no statistically significant difference in levels of faith
maturity between those who had attempted suicide and those who had not attempted suicide. This hypothesis was tested by the t test for means of two independent samples. Suicide attempters reported significantly lower levels of faith maturity than the nonattempters. Therefore, hypothesis 5 was rejected.

Research question #6 asked, Does church attendance make any difference between attempters and nonattempters?, which led to the formulation of hypothesis 6.

Hypothesis 6 stated that there would be no statistically significant relationship between frequency of church attendance and proneness to attempting suicide. This hypothesis was tested by Chi-square analysis and showed a nonsignificant relationship. Therefore, hypothesis 6 was retained.

Research question #7 asked, Do suicide attempters perceive a less warm and friendly church climate than the nonattempters?, which led to the formulation of hypothesis 7.

Hypothesis 7 stated that there would be no statistically significant difference in perception of a warm church climate between those who had attempted suicide and those who had not attempted suicide. This hypothesis was tested by the t test for means of two independent samples. Results showed that suicide attempters perceived a significantly less warm church climate than the
Research question #8 asked, Are suicide attempters more likely to be females?, which led to the formulation of hypothesis 8.

Hypothesis 8 stated that there would be no statistically significant relationship between gender and proneness to attempting suicide. This hypothesis was tested by Chi-square analysis and results showed a significant relationship. Females reported significantly more proneness to attempting suicide than males. Therefore, hypothesis 8 was rejected.

Research question #9 asked, Are adolescents from intact families (parents live together) at lower risk of attempting suicide than those from non-intact families?, which led to the formulation of hypothesis 9.

Hypothesis 9 stated that there would be no statistically significant relationship between family status (intact vs. non-intact) and proneness to attempting suicide. This hypothesis was tested by Chi-square analysis and results showed a significant relationship. Suicide attempters from non-intact families reported significantly more proneness to attempting suicide than the nonattempters. Therefore, hypothesis 9 was rejected.

Research question #10 asked, Are Hispanic suicide attempters more likely to belong to any specific generation
in the United States?, which led to the formulation of Hypothesis 10.

Hypothesis 10 stated that there would be no statistically significant relationship between generation in the U.S. and proneness to attempting suicide. This hypothesis was tested by Chi-square analysis. Results showed that there were no significant relationships between generations in the U.S. and proneness to attempting suicide. Therefore, hypothesis 10 was retained.

Research question #11 asked, Which of these variables (acculturation level, family cohesion, abuse, parental religiosity, faith maturity, church attendance, church climate, gender, family status, and generation in the U.S.), when considered together, will significantly discriminate between those who have attempted suicide and those who have not attempted suicide?, which led to the formulation of hypothesis 11.

Hypothesis 11 stated that there would be no linear combination of the variables of acculturation level, family cohesion, parental religiosity, abuse, church attendance, faith maturity, gender, family status, and generation in the U.S. that significantly discriminated between those who had attempted suicide and those who had not attempted suicide. This hypothesis was tested by discriminant analysis. The discriminant function was significant ($p = .005$).
The function indicated that an Hispanic SDA adolescent who perceived less family cohesion, was highly acculturated, perceived less warm church climate, was female, and who had suffered sexual and physical abuse was more likely to have attempted suicide. Since the discriminant function was significant, hypothesis 11 was rejected.

**Discussion**

The high incidence of suicide attempts among Hispanic SDA adolescents found in the Avance study has raised a red flag for Hispanic Seventh-day Adventists. Hispanic SDA adolescents appear to be at a similar risk of attempting suicide (12% in this study) as Hispanic adolescents in the general population (11%) (CDC, 1998b). Therefore, findings in this study are important in revealing characteristics of Hispanic SDA adolescent suicide attempters for awareness and prevention for Hispanic SDA homes and churches.

The next section presents a discussion of the findings organized by the main areas investigated in this study: acculturation, family, religion, and gender.

**Acculturation**

The research question was: Are suicide attempters more likely to be highly acculturated? Although some research suggested this to be so, in this sample, results showed...
nonsignificant differences between levels of acculturation and suicide attempts. It should be noted that suicide attempters (67.3%) did show higher levels of acculturation than the nonattempters (58%), but the differences were not large enough to reach statistical significance ($p = .07$). Results of this study, however, suggest that the outcome of the acculturation process may be influenced by other factors since when in combination with other variables (discriminant analysis), one’s acculturation level was one of the strongest indicator of the potential for an Hispanic SDA adolescent to attempt suicide. Possibly acculturation is influenced by a youths’ response to the acculturation process. This supports studies which suggest that both acculturation levels and measures of acculturative stress need to be included in studies of Hispanics’ suicidality (Vega et al., 1993; Williams & Berry, 1991).

In some studies acculturation has also been associated with which generation the subject represents as living in the U.S. It should also be pointed out that this association between acculturation and generation in the U.S. has been used as a validation criterion of acculturation scales (Marin et al., 1987). Accordingly, it would be expected that highly acculturated adolescents become classified into later generations (second, third, or fourth) rather than immigrants or first generation
Hispanics. An exploratory analysis of acculturation and generation in the U.S., in the present study, revealed the expected pattern: Adolescents in later generations were found to have higher acculturation than first generation or immigrant adolescents. This fact further validated the use of the acculturation scale used in this study.

In this study, it was anticipated that adolescents in later generations (and thus highly acculturated) would exhibit greater proneness to attempting suicide. However, results showed that generational status was not related to suicidal behavior. In this sample, it appears that high-acculturated Hispanic adolescents identified as belonging to later generations are not at risk of suicidality simply because of their acculturation level or generational status. There may be other factors or multiple factors that effect this factor, such as religiosity, personality traits, and/or support systems. However, as previously mentioned, levels of acculturation was significant when placed in combination with other factors in predicting adolescent suicidality.

In this study, Hispanic SDA adolescents exhibited similarities with the Hispanic general population in reporting levels of acculturation and generational status (for example, highly acculturated belonged to later generations). However, there are probably other factors
(i.e., poverty, education) not included in this study, which might be influencing the effect of acculturation and generation in the U.S. on Hispanic adolescents’ behavior. More studies are needed in this area.

Family

Four research questions in the family area were asked in this study:

1. Do suicide attempters experience less family cohesion than the nonattempters? The great impact of high family cohesion or support to the well-being of most adolescents in the U.S., regardless of their cultural or ethnic backgrounds, has already been recognized (Arensman & Kerkhof, 1996; Brent, 1995; Miller et al., 1992; Pfeffer, 1989; Shepard, 1995; Thorlindsson & Bjarnason, 1998). Hispanic adolescent suicide attempters in this study were not an exception. Low family cohesion made a strong difference between suicide attempters and nonattempters and resulted in the highest predictor in this study which differentiated suicide attempters from nonattempters. Indeed, suicide attempters perceived less happiness in their families, and a lack in love, help, and support. This is a relevant finding as the adolescent sample came from a church community. Being religious or Christian could give parents a false sense of security about their
families. One might think that Christian families do not have similar troubles as do families outside the church, or that their children are happy, or they would never attempt suicide. However, this study finds that some Hispanic SDA adolescents perceived their SDA families as low in family cohesion and appeared to be at great risk of attempting suicide.

2. I asked if suicide attempters experienced more abuse than the nonattempters. Results suggested that they do. The significant relationship found between all types of abuse (verbal, physical, and sexual) and suicide attempts supports findings in studies with the general Hispanic population (Queralt, 1993; Zayas & Dyche, 1995). Its significance may have been even greater if the adolescent’s abuse had not been legally recognized or verbalized. If samples of the abused are drawn from social agencies or mental health clinics, abuse has probably been recognized and treatment provided. If not, it is likely to be kept as a “family secret,” putting children and adolescents at greater risk of psychological distress and suicidality.

It should be noted here that the high incidence of verbal abuse (74%), physical abuse (40%), and sexual abuse (24%) found in this study was a wake-up call. Although it is possible that some abuse among Hispanics (verbal and
physical) has a component of culturally related behavior (i.e., discipline styles), the evidence of the adverse consequences of abuse presented in chapter 2 conveys a clear message for not condoning it. Furthermore, it would be a mistake to assume that abused adolescents who do not report suicide attempts today are not at risk for an attempt tomorrow. The high incidence of abuse definitely needs to be recognized and addressed among SDA Hispanics by families and churches.

3. The next question asked whether adolescents from non-intact families (separated/divorced) were at higher risk of attempting suicide than those from intact families (both parents together). Results suggest that Hispanic SDA adolescents living in a non-intact family were at higher risk of attempting suicide than adolescents from intact families. Divorce has been growing fast among Hispanic families in the U.S. (CDC, 1998), and 30% of the adolescents in this sample lived within non-intact families. For these families, divorce may not be the only reason families are not intact. Parental absence may be also related to separation by diverse migration situations. Sometimes, one parent comes alone to the U.S., or with older children, or with all the children, and his or her partner plans to follow later on. Many times this separation is prolonged by difficulties in entering the
U.S., either legally or illegally. Hispanic adolescents, as shown in this study, seem affected by this disruption. Single parenting is tough as well, and most likely contributes to children being at home longer periods alone and/or adolescents being asked to take on many parental responsibilities to help out (i.e., working outside home and trying to succeed at school, cooking and cleaning at home, or taking care of younger children). This study suggests that parental separation is highly stressful for Hispanic adolescents and may contribute to suicidal behavior.

4. I asked whether suicide attempters perceived their parents to display less religiosity than the nonattempters. This was considered to be an important question to ask particularly because the sample was drawn from a church community. Christian parents hope that their religiosity, especially at home, makes a difference in their children's life and behavior. In this study, suicide attempters consistently reported lower parental religiosity (parents were not good examples of the Christian life, parents did not live up to the standards of the church, and parents did not actively participate in the church life) than the nonattempters. Perhaps parental religiosity, as a model of practical religion, increases adolescents' resources to face demanding age-related pressures and stress while
adapting to a new culture. It is also probable that parental active participation at church extends the adolescents' support system and possibly helps them deal better with their perplexities.

Religion

Adolescent religiosity and adolescents' perception of church leaders were an important area to investigate since the Hispanic adolescents in this sample were identified as Seventh-day Adventists. A concern for most Christian parents and others in leadership positions, is that religion makes a difference in adolescents' lives. Specifically in this study, I wondered whether faith maturity, church climate, and attendance made a difference in Hispanic SDA adolescent suicide attempts. Results suggest that it did on at least two measures—faith maturity and church climate—but not in church attendance.

Low levels of faith maturity made a difference between suicide attempters and nonattempters. Suicide attempters reported (1) to be lacking a real sense that God was guiding them, (2) having lives not committed to Jesus, and (3) not seeking opportunities to help themselves grow spiritually. Thus, those Hispanic adolescents least committed to their faith appeared to be at greater risk of attempting suicide than those with high levels of faith.
maturity. These findings contradict Hossler’s study (1998) where faith maturity was found not related to suicide attempts in a sample consisting of mostly Caucasian SDA adolescents. It is possible that high levels of faith maturity helps Hispanic SDA adolescents to deal with the stress of acculturation and bear the uncertainties of youth as well. Caution should be exercised here about Hispanic SDA adolescents' religiosity and how it would be affecting their behavior, because the sample in this study was taken at church (as opposed to school in Hossler's study). It is possible that the religious atmosphere found at church affected their responses and helped them “look” more religious. Still, in this study, high levels of faith maturity exerted an influence on reducing suicide attempts.

In this study, a warm church climate was also found significant in reducing the risk of adolescent suicidality. Those Hispanic SDA adolescents who attempted suicide perceived their leaders at church as less warm and friendly than did the nonattempts. Interestingly enough, a warm church climate also emerged as a strong indicator (ranked 3) of the potential for an Hispanic SDA adolescent to attempt suicide. Congregations are citadels for enhancing and maintaining hope, community, and belief (Hernandez, 1995), and it appears that adolescents are greatly affected by their church community as well. Some church leaders may
withhold their friendly support when adolescents seem to not appreciate their earnest efforts, but adolescent turmoil needs to be taken into consideration in responding to youth if church leaders want to make a difference in the Hispanic adolescents' mental well-being.

Another measure of religiosity used in this study was church attendance. Church attendance, with this sample, did not show significance in reducing the risk of suicide attempts. It is possible that some adolescents are "forced" to attend church by their concerned parents, affecting their "attitude" towards church attendance. In turn, it would not be attendance alone that could make a positive difference in their behaviors or suicide attempts, but their attitude when they go to church. To corroborate with this "attitude explanation," an exploration of two statements that measured adolescents' attitudes when going to church was undertaken in relationship to suicide attempts. The two statements were: (1) "I look forward to going to church" and (2) "I go to church because I want to." When these statements were tested (by t test for means of two independent samples, $p < .05$), both emerged statistically significant. In this sample, thus, adolescents who go to church with a willing attitude seem to be at lower risk of attempting suicide than those who do not. Consequently, it appears that it is not the act of
going to church per se that is important but their attitude towards church that counts. Perhaps this construct goes hand in hand with a "warm church climate" construct, being that most likely a church seen as warm and caring would attract more teens and increase their church attendance.

Gender

With regards to gender, results in this study support previous findings with Hispanic adolescents (Queralt, 1993). Females are at higher risk for attempting suicide than are males. Some have suggested that this may be associated with the great undertaking of parental responsibilities when coming to live in the U.S., or may be attributed to excessive parental control over female adolescents (Zayas & Dyche, 1995). Furthermore, there is some evidence that discriminating factors may be present between suicidal males and females. In one study, for example, two variables (among others) highly discriminated between female and male suicidal behavior, and they were (1) family strain, and (2) anger (Thompson, Moody, & Eggert, 1994). In their study, for females, family strain and anger were important discriminating factors but not for males. It appears, thus, that certain factors (i.e., family) may affect females and males differently. Further studies in this area are needed.
Discriminant Analysis

A final question in this study was, "Which of these variables (acculturation, family cohesion, abuse, parental religiosity, church attendance, faith maturity, church climate, gender, family status, and generational status) will significantly discriminate between those who have attempted suicide and those who have not attempted suicide?"

Overall, family cohesion was the strongest discriminator of suicide attempts. Acculturation, church climate, gender, and sexual abuse were also influential discriminators. Therefore, an Hispanic SDA suicide attempter would be one who perceived low family cohesion, was highly acculturated, perceived a less warm church climate, was female, and had been sexually and physically abused.

Conclusions

Based on the above discussion, the following conclusions are drawn:

1. Hispanic members of Seventh-day Adventist churches are not free of the potential of having their young people attempt suicide. In this sample, 12% of the adolescents had attempted suicide. This is a higher percentage than the one found in the Hispanic adolescent general population.
2. Despite the scarce research on Hispanic suicidal youth, it appears that some characteristics found in the general population (i.e., family factors, gender, abuse) are also highly associated with suicidality among Hispanic SDAs. In addition, other factors that appear to increase Hispanic SDA suicide attempts have been identified as follows: high levels of acculturation, low parental religiosity, low faith maturity, and a less warm church climate.

Recommendations

On the basis of the discussion and conclusions, recommendations are made in the following areas: (1) prevention and (2) further research.

Within the prevention area, recommendations are made for: (a) parents, (b) pastors, (c) youth leaders, (d) church leaders, and e) educators.

Recommendations for Parents

1. Parents should know that the church influence is not enough to keep teens safe from attempting suicide.

2. Parents should be aware and inform themselves on the influence of the acculturation process that could affect their family relationships.

3. Parents should learn to compromise with an
adolescent who is trying to make sense between two cultural belief systems (i.e., different opinions on family traditions, the notion of respect, values, food).

4. Parents should create a highly supportive family environment.

5. Parents should be aware of the influence of their religiosity on their children’s lives.

6. Parents should attend seminars or programs where parental skills are taught. Parents should also attend family enrichment seminars.

7. Parents should work on maintaining a strong social support system with relatives in the U.S. and church members. This is especially true for those who are single parents.

8. Parents should be informed about the special stressor female adolescents appear to struggle with. A more supportive, understanding environment is needed.

9. Parents should look for immediate professional help if any member of their family attempts suicide (adults or children).

Recommendations for Pastors

1. Pastors should raise awareness concerning youth suicidality.

2. Pastors should develop a plan to periodically
present themes related to family relationships and communication.

3. Pastors should send a clear message to parents and the rest of the congregation that any type of abuse should not be condoned by them or by the church.

4. Pastors should intervene in a neutral and caring way when parents disclose family troubles with their adolescents or adolescents inform them of abnormalities at home.

5. Pastors should be informed about the special stressor that female adolescents appear to struggle with if a supportive environment is not present at home.

6. Pastors should lead church in such a way that adolescents feel accepted, welcome, and supported. Pastors should teach their congregations by precept and example to relate to adolescents in a friendly, warm, and caring way.

7. Pastors should pay attention to adolescents' attitudes and behaviors because they might indicate underlying psychological problems. If any are found, seek for help.

8. Pastors should keep a list of competent mental health professionals to provide information to the congregation or make a referral if one is needed.
Recommendations for Youth Leaders

1. Youth leaders should educate themselves about youth suicidality.

2. Youth leaders should promote awareness of suicidal behavior among youth. Programs or videos available from diverse suicide-prevention resources may help youth to talk about suicide.

3. Youth leaders should help adolescents deal with faith doubts and encourage their spiritual growth through youth meetings.

4. Youth leaders should promote freedom to express feelings in youth meetings. They can help pastors to identify adolescents at risk.

5. Youth leaders should be alert to abuse, strained family relationships, acculturative stress, or church isolation. Special attention should be given to female adolescent issues (i.e., abuse, adult responsibilities).

6. Youth leaders should generate discussions among adolescents’ parents in topics such as divorce, abuse, acculturation, and communication.

7. Youth leaders should encourage adolescents’ parents to engage in church activities to benefit their children.

8. The recognition of a suicidal adolescent is a big challenge because of the heterogeneity of factors. Thus, youth leaders should ask for help from more experienced
leaders or should make referrals.

Recommendations for Church Leaders

1. Church leaders should carry out their church responsibilities in such a way that adolescent members feel accepted and supported.

2. Church leaders should support any prevention program that prepares church members to help and care for youth in a more effective manner.

3. Church leaders should display a warm and friendly attitude toward adolescents despite their unwillingness to cooperate or their impolite dispositions. Church leaders should remember adolescents' great challenges in this developmental stage.

4. Church leaders should support the implementation of youth meetings or programs for youth enrichment and social and spiritual support.

5. Church leaders should prepare and implement a home visitation program to reach those adolescents with apparent disadvantages (separated or divorced parents, excessive parental control, recent immigration) and detect further abnormalities (abuse, family dysfunction, adolescent females performing adult responsibilities).

6. Church leaders should support any parental-skill seminars or family-enrichment programs that may benefit
adolescents at church.

**Recommendations for Educators**
*(or Sabbath/Sunday School Teachers)*

1. Educators should pay attention to adolescents' spiritual growth.

2. Educators should display a warm and friendly attitude toward adolescents despite their unwillingness to cooperate or their annoying disposition.

3. Educators should allow adolescents to develop trust so they will come to their teachers in a time of crisis for help for themselves or for another youth.

4. Educators should support the presentation of any prevention program, seminar, or lecture related to suicidality and family topics.

5. Educators should be aware of the higher risk of attempting suicide for females than for males. Gender issues should be discussed with parents and church leaders.

**Recommendations for Further Research**

1. A focus on research is needed on factors with inconsistent findings, such as acculturation, generation in the U.S., and religiosity.

2. Using the Avance study data, this study should be amplified by analyzing other possible characteristics of adolescent suicide attempts associated with ethnic identity.
issues, discrimination, drug abuse, youth worries, poverty, other church-related factors, friends, and school variables.

3. Suicide attempts among Hispanic SDA adolescents should be investigated within different age groups. It appears that teenagers and older adolescents have different characteristics or predictors concerning suicidality (Potter, Rosenberg, & Hammond, 1998).

4. Suicide attempts among Hispanic SDA adolescents should be investigated by gender. It appears that certain factors affect females and males differently.

5. Hispanic adolescent suicide should be investigated within other Christian denominations or in a comparison between different denominations.

6. There is a need for empirical evaluation of suicide prevention programs.
APPENDIX
APPENDIX A

Permission to Use Data

ANDREWS UNIVERSITY
School of Education

NAME TRIVINO JUANITA
ID # 67344

ADVANCED METHODOLOGY COMPETENCY

Address 8228 Keplin Dr
Berrien Springs, MI
Phone 616-471-9054

Major Area: Educ Psychology
Degree: PhD

Please complete the following:

☐ 3. Research project - no credit

Describe project and methodology learned/used:

Triquina worked on the NARRE research project - a national
data base of over 3,000 Hispanic seventh-day Adventists. This study
based on a stratified sample of congregations by denomination and region,
used an extensive survey to study family, religious, and cultural
values. Triquina worked on a paper which focused on the
Hispanic family. She managed the data appropriately and
did an excellent job in the interpretation & writing.

This research experience was very valuable to her as well
as for my research. Her training & willingness & cooperative spirit
made this a most productive experience. As a result of this
experience I would be willing to give my full support to assistance
for ms Triquina to use these data - NARRE - for her dissertation.

Signature of Supervisor

Date 7/16/96
APPENDIX B

Sample Page of the Questionnaire Used in the Avance Study

Choose from these answers:

1. Strongly agree
2. Agree
3. I'm not sure
4. Disagree
5. Strongly disagree

280. The programs challenge me to think ........................................... 0 0 0 0 0
281. The programs are faith affirming and inspirational ............................. 0 0 0 0 0
282. Youth meetings ("sociedad de jóvenes") need to be improved ................. 0 0 0 0 0
283. I look forward to attending the youth programs ("sociedad de jóvenes") every week ........................................... 0 0 0 0 0

The following questions deal with your perceptions of your local church worship experience.

Choose the following answers:

1. Strongly agree
2. Agree
3. I'm not sure
4. Disagree

284. I enjoy listening to my pastor preach ........................................... 0 0 0 0 0
285. I would characterize the sermons preached at my church as being Christ-centered ................. 0 0 0 0 0
286. The sermons in my church help me to relate my beliefs with problems and issues in today's world ................. 0 0 0 0 0
287. Youth have a voice in the decision making process of the church ................. 0 0 0 0 0

280. Los programas me estimulan a pensar y reflexionar ........................................... 0 0 0 0 0
281. Los programas inspiran y fortalecen la fe ........................................... 0 0 0 0 0
282. La sociedad de jóvenes necesita mejorarse ........................................... 0 0 0 0 0
283. Me gusta asistir a la sociedad de jóvenes cada semana ........................................... 0 0 0 0 0

Las siguientes preguntas tratan de tu experiencia en el culto de tu iglesia local.

Elige entre estas respuestas:

284. Me gusta escuchar la predicación de mi pastor ........................................... 0 0 0 0 0
285. Pienso que los sermones que se predicen en mi iglesia son Cristocéntricos ........................................... 0 0 0 0 0
286. Los sermones en mi iglesia me ayudan a relacionar mis creencias con los problemas del mundo moderno ........................................... 0 0 0 0 0
287. Los jóvenes tienen voz y voto en la toma de decisiones de la iglesia ........................................... 0 0 0 0 0
APPENDIX C

Data Collection and Sampling of the Avance Study

A STUDY OF THE NORTH AMERICAN HISPANIC ADVENTIST CHURCH - YOUTH SURVEY, 1994

SUMMARY

The purpose of this study was to examine the unique needs and challenges facing the Latino Adventist community in the North American Division of the Seventh Day Adventist Church, which includes the United States, Hawaii, Canada, and Bermuda. "The major focus was on illuminating the nature, current trends, perspectives, and trends within the Adventist Latino community" (Hernandez, 1995, p.29).

AVANCE was conducted as a follow-up study to Valuegenesis.

DATA FILE
Cases: 1,163
Variables: 354
Weight Variable: None

DATA COLLECTION
Data Collected: April, 1993 - March, 1994

Funded by
A major grant from the North American Division of the Seventh Day Adventist Church and additional support from Adventist educational institutions including: Andrews and La Sierra universities, and Atlantic Union, Pacific Union, and Walla Walla colleges.

Collection Procedures
Self administered surveys were distributed at congregational "youth society meetings". All Hispanic Adventist churches regularly hold "youth society meetings" where youth and adults are both in attendance. The pastor of each church was given a short survey to determine whether the group that was present at the "youth society meetings" was representative of the church membership.

Sampling Procedures
In order to draw a random sample of Hispanic Seventh-day Adventist churches, all of the churches were listed by conference within union. Within each conference, the churches were listed by size. For the first conference, they were listed from largest to smallest, and then in the next conference from smallest to largest, etc. This "serpentine" pattern preserved the similarity of size of churches adjacent on the list. If it was necessary to replace a church that had been chosen on the list by its "shadow" (the next one down on the list) this pattern avoided a sudden jump in size from large to small. A single running cumulative total column was calculated alongside the entire list of churches. The last entry in this column totaled 56,974.

To do the actual sampling, the grand cumulative total was divided by the total number of churches desired for the sample (in this case, 60). This produced an "interval size" of 56,974 /60 = 949. A random number between 1 and 949 was then generated; it happened to be 636. The actual churches were drawn from the sample by going down the "cumulative sum" column until a number equal to or greater than 636 was found. The church associated with that cumulative sum was the first church in the sample. Then the interval (949) was added to the random start (636 + 949 = 1585). The church associated with a "cumulative sum" total of 1585 was chosen as the second church. All remaining churches were chosen by successively adding the interval to the running total, and picking the church associated with that cumulative sum: 2534, 3483, 4432, 5381, etc. The resulting sample is stratified by union, by conference within union, and by size.
Principal Investigators
Edwin I. Hernandez, Sergio Hernandez, Mario Negrete, Ramona Perez-Greek, Johnny Ramirez, Caleb Rosado, Saul Torres, Alfonso Valenzuela and Daisy Machado.

Note: The senior PI, Edwin I. Hernandez, is interested in cooperative publications with this data.

Related Publications

Cleaning Data Procedures for the AVANCE Research Project
The AVANCE research project employed basically the same procedures to check the data for quality and accuracy (a process called "cleaning the data") as those used during the Valuegenesis research project. Given the differences in questions and procedures in the AVANCE project, some additional steps were taken to insure data quality, which are noted here.

One of the most important issues in survey research is the reliability and validity of the survey responses. While the accuracy and honesty of survey answers can never be guaranteed, there are procedures available to increase the confidence in the data obtained. In this present study, the following procedures were employed:

1. Examining frequencies of missing items: The first method is to determine whether large numbers of questions have been left blank. Blank questions toward the beginning of a survey may indicate reading difficulties; further on, blanks may indicate inappropriate time allotments, fatigue, or inattentive responding, calling into question the validity of responses. In order to address this problem, questionnaires with 10 or more missing items in the first 75 questions were omitted from the analysis.

2. Nonresponse: As was the case in the first 100 items of the core, there was concern that youth or adults whose surveys were retained in the final data set not have undue numbers of omissions in the items specifically relevant to youth and adults. Thus youth and adults who omitted more than 4 items out of the first ten in their respective sections, beginning with FAITINGD, were omitted from the analysis.

3. Deviance Index: A frequent concern is whether the respondents honestly answer when asked about certain norm-breaking behaviors, such as drug use and stealing. While there is virtually no way to assure the accuracy of the measurement of such behaviors, it is reasonable to believe that the numbers obtained here are comparable to those obtained in other national surveys, particularly the Valuegenesis survey. Following the procedures in such surveys respondents who indicate abnormally high levels of deviant behaviors will be deleted.

There are 8 major measures of extreme norm-breaking behavior in the common core section of the surveys. Questions OPTNDRINK, OPTNSMOK, OPTNDRUG, BNGEDRINK, and GOPARTY-PREMASEX assess the use of alcohol, smoking, illegal drug use (marijuana, cocaine, etc.), binge drinking, going to parties where others are drinking, shoplifting, viewing pornography, and engaging in premarital sex. In each case, respondents were asked to report how many times, during the last 12 months they did each of these things, on a scale ranging from 1 = "never" to 8 = "more than once a day". The total range is 8 to 64. While it is possible that a given individual may engage in a number of these behaviors "more than once a
day", we viewed it as highly unlikely that any one individual would have done all eight of them "more than once a day", or at least unlikely that such an individual would be attending a "youth society meeting" at church to complete the survey. In order to address this issue, all respondents who answered "more than once a day" for each of the eight items for a total of 64 will be omitted from the analysis.

4. Inconsistent Responding: The following procedures for addressing inconsistent responding have to meet the minimum requirement of missing data as discussed above.

Youth: When a respondent filled out a youth survey, but his/her age was 26 and above and/or the respondent was married (indicated by item MARITAL option 3) the responses to core items HLPQUEST to TELENMBR were kept and the rest coded as missing. Responses to core items HLPQUEST to TELENMBR from unmarried youth from ages 13 to 25 who filled out the adult survey were kept and the rest coded as missing. If a youth was not in school (indicated by marking 1 on SCHOOL) then responses to TCHAQUAL to FORGTSPN were coded as missing.

Adults: When adults who were 26 and older and/or who claimed to be married filled out a youth survey their responses were included to core items HLPQUEST to TELENMBR and the rest of the questions (KIDSMAL to BIGFAMIL) were coded as missing.

5. Substituting missing data: For those respondents who had less than 10 missing items in the first 100 questions (see above) and who had four or less missing items in the first 10 questions starting with FAITINQD of the respective youth and adult surveys the following procedure was used to deal with other missing data.

The total sample was subdivided by congregation, and parish-specific means of at least 60% of the adults or youth within the congregation were imputed in the missing cases. In other words, if 60% of sampled adult members answered the item then their mean score was imputed to the remaining 40% who had missing data; otherwise, the missing data remained as missing. This procedure minimizes problems associated with conventional "mean plugging" which reduces sample variance and is viewed as being appropriate when a sample has distinct clusters and subdivisions as is the case with congregational studies (See Lege and Welch, 1989).

APPENDIX D

RESEARCH VARIABLES—SCALES AND SINGLE ITEMS

Introduction

Following are the scales and single items listed that were used in this investigation. Most of the scales were developed and identified by the research committee that conducted the Avance study as explained in Chapter 3. The number in front of each item listed is the corresponding number in the original Avance youth questionnaire. Although the original document was presented to respondents in English and Spanish, only the English version is included here.

Acculturation

Short Acculturation Scale (Language Use)

The Short Acculturation Scale (Language Use) for Hispanics used in the Avance study was developed by Marin and others (1987).

Items:

101. In general, what language do you read and speak?
102. In which language do you usually think?
103. What language do you usually speak at home?
104. What language do you usually speak with your friends?

Answer format:

1 = Only Spanish
2 = Spanish more than English
3 = Both equally
4 = English more than Spanish
5 = Only English

Score range: 1 - 5

Family Cohesion Scale (six items)

Item stem: How much do you agree or disagree with each of the following?

188. My family life is happy.
189. There is a lot of love in my family.
190. I get along well with my parents.
191. My parents give me help and support when I need it.
192. My parents often tell me they love me.
193. I cherish the moments when my whole family (grandparents, cousins, aunts, uncles, brothers, sisters, parents) are together.

Answer format:

1 = Strongly disagree.
2 = Disagree
3 = I'm not sure

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4 = Agree
5 = Strongly agree

Score range: 1 - 5

**Parental Religiosity Role Model Scale**

*(three items)*

**Item stem:** How much do you agree or disagree with each of the following?

202. My parents are good examples of the Christian life.

203. My parents live up to the standards of the church.

204. My parents actively participate in the life of the church.

**Answer format:**

1 = Strongly disagree.
2 = Disagree
3 = I’m not sure
4 = Agree
5 = Strongly agree

Score range: 1 - 5

**Adolescent Abuse**

Items #165, #166, and #167 consisted of two parts. The first part referred to the abuse itself and the second
pointed out the perpetrator of the abuse. The three items were similar in format.

*Item: 165.* Have you ever experienced verbal or emotional abuse (being humiliated, told that you were "no good," being regularly "put down," made to feel worthless)?

**Answer format:**
- 1 = Never
- 2 = Rarely
- 3 = Some of the time
- 4 = Very often
- 5 = Almost all the time

**Score range:** 0 - 5

**Revised value format:**
- 1 = Yes
- 2 = No

**Score range:** 1 - 2

*The second part of the item #165 was:*

If you have experienced verbal or emotional abuse, by whom?

**Possible answers:** Parents, spouse, close relative, friend or neighbor, other.

For each of these possible answers, a variable was defined as Verbal Abuse by Parents (165bl), Verbal Abuse by Spouse (165b2), and so on. In the present study, Verbal Abuse by Parents and by Close Relative
were analyzed separately (after analyzing overall abuse that included the three type of abuse).

Value format:

1 = Yes
2 = No

Score range: 1 - 2

Item: 166. Have you ever experienced physical abuse (beaten until one had bruises or other marks, or being pinched, or slapped in the face)?

Answer format:

1 = Never
2 = Rarely
3 = Some of the time
4 = Very often
5 = Almost all the time

Score range: 0 - 5

Revised value format:

1 = Yes
2 = No

Score range: 1 - 2

The second part of item #166 was:

If you have experienced physical abuse, by whom?

Possible answers: Parents, spouse, close relative, friend or neighbor, other.

For each of these possible answers, a variable was
defined as Physical Abuse by Parents (166b1), Physical Abuse by Spouse (166b2), and so on. For the current study, Physical Abuse by Parents and by Close Relative were selected.

Value format:
1 = Yes
2 = No

Score range: 1 - 2

Item 167. Have you ever experienced sexual abuse (being touched or fondled in sexual areas of the body, raped or seduced, or pressured into having sex against your will)?

Answer format:
1 = Never
2 = Rarely
3 = Some of the time
4 = Very often
5 = Almost all the time

Score range: 0 - 4

Revised value format:
1 = Yes
2 = No

Score range: 1 - 2

The second part of item 167 was:

If you have experienced sexual abuse, by whom?
Possible answers: Parents, spouse, close relative, friend or neighbor, other.

For each of these possible answers, a variable was defined as Sexual Abuse by Parents (166b1), Sexual Abuse by Spouse (166b2), and so on.

For the present study, Sexual Abuse by Parents and by Close relative were selected.

Value format:
- 1 = Yes
- 2 = No

Score range: 1 - 2

Church Attendance

Item stem: #86. How often do you attend church?

- 1 = Never
- 2 = Less than once a month
- 3 = About once a month
- 4 = Two or three times a month
- 5 = About once a week
- 6 = Several times a week or more

Score range: 1 - 6

Revised value format:
- 1 = less than once a week
- 2 = about once a week
- 3 = more than once a week
Faith Maturity Scale

Item stem: How true are each of these statements for you? Be as honest as possible, describing how true it really is and not how true you would like it to be. Mark only ONE answer.

1. I help others with their religious questions and struggles
2. I seek out opportunities to help me grow spiritually
5. I feel God’s presence in my relationships with other people
6. My life is filled with meaning and purpose
9. My life is committed to Jesus Christ
10. I talk with other people about my faith
11. I have a real sense that God is guiding me
12. I am spiritually moved by the beauty of God’s creation

Answer format:
1 = Never true
2 = Rarely true
3 = Sometimes true
4 = Often true
5 = Always true

Score range: 1 – 5
Warm Church Climate

The Avance study created the Church Climate: Warm Scale, but deleted after a reliability analysis was performed (alpha coefficient below .60). For this study, a single item (#66) was used to measure Church Warm Climate.

Item stem: Think about the local church you attend. How much do you agree or disagree with each of these statements?

66. The leaders at my church are warm and friendly toward the youth.

Answer format:

1 = Strongly disagree.
2 = Disagree
3 = I’m not sure
4 = Agree
5 = Strongly agree

Score range: 1 - 5

Gender

Item: 13. Are you male or female?

1 = Male
2 = Female

Score range: 1 - 2
Family Status

Item: 187. What is your family status? Mark only ONE answer.

Answer value format:

1 = Both parents live together.
2 = My parents are separated.
3 = My parents are divorced.

Revised value format:

1 = intact family (both parents live together)
2 = nonintact family (parents are divorced, separated)

Score format: 1 - 2

Generation in the United States

Item: 105. Were each of the following people born in the United States?

Answer format: Yes, No, Don’t know

a. Yourself b. Your mother
c. Your father
d. At least one of your grandparents

Value format:

1 = First generation
2 = Second generation
3 = Third generation
4 = Fourth generation

Score range: 1 - 4
REFERENCE LIST


PERSONAL INFORMATION
Born in Valparaiso, Chile.

EDUCATION
ANDREWS UNIVERSITY
Doctoral Candidate, Educational Psychology.

ANDREWS UNIVERSITY

LOJA UNIVERSITY, ECUADOR

EXPERIENCE
FAMILIA & CRECIMIENTO (FAMILY & GROWTH), California
Founder and Director, 1998-Present.
Provides family life educational and psychological services to Hispanics.
Supports family ministries within Christian settings, especially SDA churches.

TERESA’S COUNTRY HOMES FOR THE ELDERLY, Michigan
Provided assistance, activities, and support to residents and their families.

SAFE SHELTER, INC. and ST. JOSEPH MEMORIAL HOSPITAL, Michigan
Provided individual and group counseling to abused women and their children.
Co-facilitated the group counseling in the hospital out-patient program.

SAN GABRIEL ACADEMY, California

ECUADOR, PERU, and CHILE
Worked in several locations and positions, mostly in SDA organizations.

AFFILIATIONS
American Counseling Association
Association of Adventist Family Life Educators
Phi Delta Kappa