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LEVELS OF ACCULTURATION OF CHILDREN OF MEXICAN
DESCENT AS PERCEIVED IN THEIR
KINETIC FAMILY DRAWINGS

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

by
Kevin Adolfo Rosado

February 2001

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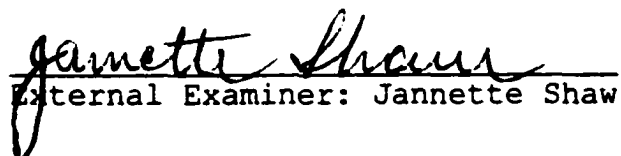
APPROVAL BY THE COMMITTEE:


Chair: Donna J. Habenicht


Dean, School of Education
Karen Graham


Member: Wilfred G. A. Futcher


Member: Elsie P. Jackson


External Examiner: Jannette Shaw

8-06-01
Date approved

ABSTRACT

LEVEL OF ACCULTURATION OF CHILDREN OF
MEXICAN DESCENT AS PERCEIVED IN
THEIR KINETIC FAMILY DRAWINGS

by

Kevin Adolfo Rosado

Chair: Donna J. Habenicht

ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University

School of Education

Title: LEVEL OF ACCULTURATION OF CHILDREN OF MEXICAN-
DESCENT AS PERCEIVED IN THEIR KINETIC FAMILY
DRAWINGS

Name of researcher: Kevin Adolfo Rosado

Name and degree of faculty chair: Donna J. Habenicht, Ed.D.

Date completed: February 2001

Problem

Information on Hispanic children and their families is limited. More research activity is crucial in the light of the rapidly expanding population of Latino/Hispanics. Mexican families present a particular challenge to clinicians and to treatment settings, as well as to researchers. The impact of acculturation on psychological assessment instruments is largely unknown.

This study sought to use the Kinetic Family Drawing (KFD) as a tool to gain information about how differences

in acculturation are reflected through drawings done by children of Mexican descent.

Method

Private and public schools with representation of Mexican-American and Caucasian children from rural, semi-rural, small cities, and urban areas were selected in central and north Texas. Subjects were non-clinical children, 320 of Mexican descent and 114 Caucasian-Americans in Grades 3 through 6.

Subjects were assigned to different acculturation levels utilizing criteria by Olmedo (1980) and Padilla (1980). Children were interviewed and drew KFDs, which were analyzed qualitatively and quantitatively to ascertain different acculturation levels.

Results

Levels of acculturation were clearly evident in the KFDs of these children. Many traditional Mexican family values are replaced gradually by American values. The variables of place of birth, length of time lived in America, and language preference all have a relationship with the acculturation process.

Less acculturated Mexican family members were more often drawn engaged in work-related activities with defined

roles to help the family survive in a new country. More leisure activities were drawn by the more acculturated children and by Caucasian children. Higher levels of communication and interaction levels were drawn by more acculturated than by less acculturated children.

Conclusion

Levels of acculturation were clearly portrayed in the KFDs of Mexican-descent children. Although still holding some of their traditional cultural values, Mexicans gradually adopt values and activities similar to those of the American culture. Similar studies are needed to enhance the understanding of other minority children's acculturation process.

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ACKNOWLEDGMENTS

I would like to thank my chairperson, Donna Jeanne Habenicht, Ed.D. I appreciate her genuine and enduring commitment to Christian Education and to her students. I would like to thank my statistics advisor, and member of my committee, Wilfred Fatcher, Ph.D., for his ability to make the most difficult concepts simple and comprehensible, for his good sense of humor, even in difficult situations, and for his willingness to go the extra mile for his students.

I would like to thank the other members of my committee and the school as well as teachers who allowed me to use students in their classes as subjects. I would not have been able to complete this research without their help. I also would like to thank my supporting friends and role models, Robert and Charmaine Baynum, who have always been an inspiration to me.

I will always be indebted to Rachel, my wife, and Lindy, Michael, and Mindy, my children, who have been with me every step of my graduate education giving me all their support and encouragement. This achievement is theirs also.

CHAPTER I

INTRODUCTION

The understanding of any particular culture promotes harmony between different ethnic groups, and in turn contributes to human welfare and to the advancement of societies. Every human being lives, grows, and strives for fulfillment within a culture. In and through their culture, people establish roots, grow, learn customs and values, and thus develop into persons with certain cultural affiliation.

In addition to being shaped by their culture, people also create their culture. Thus, to speak of a people and their culture is to speak of a dynamic relationship (Cervantes & Arroyo, 1994).

The significant increase in ethnic minority populations, along with their greater visibility in clinical settings, has provided an impetus for greater interest in minority mental health issues, and in understanding their culture. In 1998, Latino/Hispanics alone accounted for about 11.5% of the total United States population (U.S. Bureau of the Census, 1998). The cultural realities in which

Latino/Hispanic young people live are very complex and have powerful influences on their lives. These youth and their families present a challenge to clinicians and to treatment settings, as well as to researchers in this new century.

During the last decade, several volumes were published that focused on cultural issues in the treatment of ethnic minority children and youth (Gibbs, Huang, & Associates, 1990; Ho, 1993; Vargas & Koss-Chioino, 1992). Likewise, clinically focused, practitioner-oriented articles have increased in the past few years. Professional organizations have made important moves to encourage practitioners to become culturally responsive. The American Psychological Association (APA), for example, in 1993 published "Guidelines for Providers of Psychological Services to Ethnic, Linguistic and Culturally Diverse Populations," previously published by the APA Office of Ethnic Minority Affairs. These guidelines, in general, offer specific directions as to how mental health services can be placed within a sociocultural framework to consider diversity of values, interactive styles, and cultural expectations in a systematic fashion.

The National Institute of Mental Health Child and Adolescent Service System Programs (CASSP) also published relevant documents to assist providers with guidelines that

deal with specific problems that confront children and adolescents of ethnic minority groups. One of those documents was published under the title: "Toward a Culturally Competent System of Care: A Monograph of Effective Services for Minority Children Who Are Severely Emotionally Disturbed: Vol. 1" (Cross, Bazron, Dennis, & Isaac, 1989). This growth in clinical and research activity is crucial in the light of the rapidly expanding population of Latino/Hispanics, already ranking as the second largest ethnic minority group in the United States (Russel & Satterwhite, 1978; U.S. Bureau of the Census, 1998).

The importance of these studies rests on the fact that they have aided in understanding differences between cultures. Differences can cause problems because individuals lack the ability to step out from their own worldviews and accept the possibility of other alternatives. A better understanding of other cultures will help to avoid misunderstandings and foster appreciation for people in a country formed by diverse cultural groups, such as is the case in the United States of America.

The Problem

The United States of America is a country enriched with a diversity of cultural backgrounds. In 1978, in

recognizing the need to include cultural and minority group experiences in promoting human welfare, the President's Commission on Mental Health urged that particular attention be paid to the needs and problems of ethnic minorities (Sue & Morishima, 1982). Information on Hispanic children and their families is limited even though Hispanics are one of the main minority groups in America and increasingly more Hispanics are migrating here. More studies need to be conducted to gain a better understanding of this large segment of the population in the United States.

Inevitably, when different cultural groups interact acculturation will be experienced by those who have arrived more recently. Evidence of cultural conflict is more likely to be found within the family, the major transmitter of values. Several empirical studies have shown that it is plausible that conflict between one's cultural lifestyle and values and those of the majority society can be distressing (Gil, Vega, & Dimas, 1994; Guinn, 1998). Although little empirical research has been done on the psychological effects on Latino/Hispanics of acculturation to Anglo-American lifestyles, Stonequist (1961) and Wallace (1970) have both argued that any person or group of people undergoing cultural change and cultural conflict is vulnerable to suffering loss of self-esteem and other

emotional and personality distresses. Ruiz (1981) and Constantino, Malgady, Casullo, and Castillo (1991) cautioned psychotherapists to assess and determine whether a given client is bicultural and whether that client and the client's particular set of problems will respond better to a bicultural treatment program or not.

The census in the 90s indicated that a large majority of Latino/Hispanics specify Spanish as the language spoken in their home as children. This profile suggests that many Latinos/Hispanics are still relatively close to the Spanish language. It also suggests that many of them are close to the social, familial, religious, and cultural systems of their country of origin, sharing a different type of culture to the American population at large.

With the present needs in the Latino/Hispanic population to examine ways of understanding its culture and possible ways of meeting their needs, the projective family drawings may offer insights on how Latino/Hispanic children perceive their families and how their family interactions differ from those of the majority culture. Since Burns and Kaufman (1970) developed the Kinetic Family Drawing, it has been a popular instrument among psychologists for assessing self-perception and family relationships of children (Burns, 1982; Burns & Kaufman, 1970, 1972; Cummings, 1980; McPhee &

Wegner, 1976). Although it appears to be a viable instrument for assessing children's perspectives of self and family relationships, most studies of KFDs have focused on the Caucasian population of America, and only a few studies have focused on other cultures (Burns, 1982; Cabacungan, 1985; Chartouni, 1992; Cho, 1987; Chuah, 1992; Gregory, 1992; Shaw, 1989).

Habenicht (1990) pointed out that clinicians in the United States who ignore the multicultural nature of the country risk misinterpreting children's family drawings. Particular family patterns may be experienced differently in various cultures and, therefore, understanding normal family patterns of different cultural backgrounds is essential in order to evaluate abnormality and its effects on children of diverse cultural backgrounds.

A number of studies have been done with Hispanic samples (Cervantes & Arroyo, 1994; Colon, 1987; Constantino et al., 1991; Osorio, 1996). Some of these studies have focused on validating diverse assessment instruments (Giesenger, 1992), and others have focused on validating appropriate interventions for the Hispanic population (Fabrega, 1995). Other studies have focused on issues of acculturative stress and personal adjustment among Hispanics (Gil et al., 1994; Nájera, 1990).

Osorio (1996) conducted a study with Hispanic children focusing on family structures of Hispanics and substance abuse issues utilizing the KFD technique. Griffith and Villavicencio (1985) studied the relationships among acculturation, sociodemographic characteristics and social support in Mexican American adults. No study has been done with children of Mexican descent, comparing this group with Caucasian-American children, to ascertain if their drawings reflect more of the culture of the Caucasian majority as they go through the process of becoming more acculturated to the mainstream culture.

Purpose of the Study

The purpose of the study was threefold: (1) To describe the perceptions of self and family relationships of Mexican-descent children in Grades 3 to 6 as revealed in their Kinetic Family Drawings; (2) to compare the KFDs of Mexican-descent children with those of Caucasian-American children; and (3) to discover if levels of acculturation of Mexican descent children and their families can be ascertained in the KFD.

Research Questions

This study sought to answer the following questions regarding children of Mexican descent:

1. How do they draw their families?
2. How do the KFDs of males and females differ?
3. How do the KFDs of *unacculturated*, *moderately acculturated*, and *acculturated* children of Mexican descent differ from one another, and how do they differ from those of Caucasian-American children?

Importance of the Study

What happens to families during the process of acculturation has important implications for educators, health and mental health providers, and other agents of social services. This study intends to provide information that will assist teachers, social workers, counselors, and psychologists in gaining insight into the cultural heritage of children of Mexican descent. The study offers deeper understanding into family dynamics unique to Mexican families, changes that may be perceived in Mexican families as they pass through different levels of acculturation, and their shared characteristics in spite of belonging to different levels of acculturation.

Theoretical Framework

The American population is composed of people from many different racial origins and teachers in America meet children from all over the world who bring with them

knowledge and practices of their unique cultural background. People in all walks of life in our times will have more and more extensive interaction with people of other cultures. Understanding differences between cultures is becoming more valuable to every member of our modern society.

Bond (1991) stated that cultural differences are generalizations only. A present flaw generalized in the social sciences is the concept that the culture of the Mexican-American can be understood in a convenient "catch-all" for explaining issues faced by this group (Buriel, 1984). For example, if children of Mexican descent do poorly in school, it is because their culture allegedly discourages achievement motivation (Demos, 1962).

Unemployment and holding low-paying jobs is attributed to their culture that encourages fatalism (Kuvlesky & Patella, 1971); involvement with gangs and other forms of delinquent behavior is attributed to the antisocial and violent nature of their culture (Heller, 1966).

As a result of this view, social scientists and lay people alike, have argued in favor of complete assimilation to ameliorate the problems of Mexican-Americans and adjustment to American culture, presumably to bring about success. This view was labeled by Buriel (1984) as the "damaging-culture" model. This model's validity rests on

studies that show Mexican-American children scoring lower than Anglo-Americans on a variety of psychological and cognitive measures. However, conceptual errors were cited in the methodology of those studies that support the damaging-culture model, including drawing random samples of Mexican-Americans and Anglo-Americans, and then using group means to draw conclusions about the effects of culture. This is misleading because it assumes that Mexican-Americans are a culturally homogeneous population.

In reality, a randomly drawn sample of Mexican-descent children will yield individuals who differ on a variety of cultural characteristics such as the ability to speak Spanish, generational status, ethnic identity, and appreciation for cultural values and traditions (Buriel, 1984). A two-group study ignores these important within-group differences, and thus, it is inappropriate to draw conclusions about the effects of culture from such studies.

The present study proposed that a four-group study would be more valuable in understanding within-group significant differences. The theory is that furthering understanding of the acculturation levels of diverse subgroups of people within the same ethnic group will correct the misconstrued idea that all people belonging to a particular ethnic group partake of the same cultural values

and customs. In the United States of America it has been found that children who have lived here for several generations, who have American citizenship status, and who live outside their ethnic community, are more acculturated to American society than those who have been in America a shorter time, are not American citizens, and live within an ethnic community (Fung, 1965).

One may think that people of Mexican origin are very different from Americans, but this is not true of all. Some Mexicans may be more like members of the mainstream culture than their own, thus, they could be categorized as wholly acculturated. Some authors have argued about the role of the family in the acculturation process. Heller (1966), for example, stated that the Mexican-American family hinders acculturation by encouraging overdependence and thereby preventing family members from making a satisfactory integration into U.S. society. Others view the Mexican-American family as serving to protect its members from the negative effects of acculturation, such as prejudice, discrimination, and imposition of minority status (Zinn, 1975).

The first study, purporting to bring further understanding on the diversity of acculturation within the same ethnic group, was done by Ramirez (1983) who suggested

that for families of Mexican descent, acculturation to U.S. society may be better explained by a bicultural model, that accounts for differential patterns of acculturation, while viewing acculturation as a multidimensional process. Perhaps the more salient question is not whether families and children change during acculturation, but in what areas of family functioning these changes take place.

Culture and The Kinetic Family Drawing Technique

Mental health providers seek assistance in finding and interpreting instruments that aid in understanding populations they serve. Projective tools are techniques used for this purpose. The Kinetic Family Drawing is a projective technique that has been used increasingly by clinicians who have found it generally helpful in counseling children (Burns, 1982; Burns & Kaufman, 1970, 1972; Cummings, 1980; McPhee & Wegner, 1976). The most basic assumption of projective drawings, including the KFD, is that a child's psychomotor-response drawing contains nonverbal, symbolic messages (Cummings, 1980). Children's drawings are signs of unconscious needs, conflicts, and personality traits. They reflect their attitudes and those concerns which are most important to them at the moment of drawing (Koppitz, 1968).

Koppitz (1983) stressed that a projective drawing serves as a natural expression for children and is a nonverbal language. The analysis of drawings should always include both the whole picture and any unusual signs that may indicate underlying concerns. Goodenough (1931) mentioned that children's drawings must be looked upon as a universal language of childhood whereby children of all races and cultures express their ideas of the world about them. Koppitz (1983) commented that drawings tend to reflect children's attitudes of that moment and, therefore, might change over time. If this is the case, the theory of this study was that changes that occur through the acculturation process, will be also reflected in the KFDs of the children of Mexican descent.

Burns (1982) reported on studies using the Kinetic Family Drawing in Great Britain, Brazil, Japan, the Philippines, Norway, and Germany. The technique is minimally dependent on language, and thus quite culture-free (Burns, 1982; Knoff & Prout, 1985a, 1985b). Some studies conducted by graduate students under Habenicht's direction, directed toward the study of various American subcultures, added evidence that, though developed in the U. S. with Caucasian children, the KFD promises usefulness in cross-cultural use (Chandler and Habenicht, 1992).

The significant differences between the American culture and other cultures often cause surprise and misinterpretation. The individualistic pattern, a value ingrained in the culture of the majority in America, stresses egalitarianism, voluntarism, and independence, whereas familism, a value ingrained in the Mexican culture, emphasizes values such as hierarchical family roles, paternalism, and interdependence.

The culture of the children being served should be understood by those who serve them lest they find the unfamiliar approach confusing and unhelpful, making termination of the relationship highly probable, although the need for help remains (Sue, Sue, & Sue, 1994).

The family is the basic foundation of a society. Studying how families function within their own culture will lead to a broader understanding of the ethnic group formed by the families being studied. The KFD has been shown to be an appropriate tool for enhancing understanding of families (Chuah, 1992; Shaw, 1989), and it is expected that understanding of the levels of acculturation in foreign families could also be enhanced through using the KFD technique.

There is some evidence suggesting a "differential" pattern of acculturation within Latino families (Sabogal, Marin, Otero-Sabogal, Vaness-Marin, & Perez, 1987). Ramirez (1983) argued that the unique acculturation experiences of Mexican-American families can produce a bicultural adaptation to U.S. society. Rueschenberg and Buriel (1995) conducted a study of Mexican-American families at different levels of acculturation. The study predicted that level of acculturation is differentially related to family functioning.

The different levels of acculturation used in this study are based on previous studies by Olmedo (1980) and Padilla (1980) which used several dimensions of acculturation, including language preference and proficiency, generational status, and recency of migration. Three acculturation levels were used by Rueschenberg and Buriel (1995): *unacculturated*--all family members born in Mexico, parents monolingual Spanish-speaking, having migrated to the United States within the past 5 years; *moderately acculturated*--parents born in Mexico and having resided in the United States for more than 10 years, children born in the United States, parents monolingual Spanish-speaking or Spanish-dominant and children with English-speaking ability; and *acculturated*--

both parents and children born in the United States, bilingual or English-speaking preference for both parents and children. The same concept was used in the present study with the additional theory that the KFD technique would reflect significant differences between these three different levels of acculturation.

Although much of the literature offers only traditional cultural stereotypes representing the Mexican-American culture as being more affiliate, less individualistic, more cooperative, and less competitive than Anglo-Americans, in reality, it is formed by a heterogeneous group that can be an excellent source of study to understand psychological changes that take place as a consequence of constant exposure to a different culture. The process of acculturation is gradual and may proceed through different levels, from unacculturated to totally acculturated.

Projective drawings, in particular the KFD technique, hold promise for the study of the acculturation process. Different levels of acculturation may be reflected in the drawings of children of Mexican descent as they progress through their acculturation process toward adopting the Anglo-American culture.

Delimitations of the Study

This study was delimited to groups of students in Grades 3 to 6, in Texas, from selected public school districts and parochial schools where children of Mexican descent attend together with Caucasian-American children. It is not the purpose of this study to make generalizations to other populations.

Limitations of the Study

The sample included only schools, families, and individual children who were willing to participate.

Definition of Terms

Terms used in this study are defined as follows:

Acculturation: Acculturation is the dynamic process that occurs when two autonomous cultural groups are in constant contact with each other leading to change in one or both cultures depending on the power relationship between them. This can occur on two levels: at the level of the group and at the level of the individual (Berry, 1980).

Caucasian-American: A child whose parents are White, non-Hispanic, of European descent, and who is living in the United States.

Culture: The configuration of learned behavior and results of behavior whose components and elements are shared and transmitted by the members of a particular society (Linton, 1945; cited in Atkinson, 1989).

Familism: An individual's relationship to other family members that influences his or her self-confidence, worth, security, self-identity, and ethnic identity.

Fatalism: A tendency to think in terms of transcendent qualities that are in control, such as justice, loyalty, or love; and not being preoccupied with mastering the world.

Hierarchy: A concept of persons' social position manifested in the leadership structure of the family, where the father occupies the role of superior authority and the mother's role is to follow. Parents expect to be obeyed when they advise their children. Younger children are expected to obey older children, who serve as role models.

Hispanics: A term of convenience for U.S. residents whose ethnic roots are in Spain, North, Central, or South American countries.

Latino: Customarily denotes those people using languages derived from Latin, such as Spanish, who reside in the U.S. and are of Spanish and Latin American descent.

Mexican descent: A term used for any person whose ethnic background is from Mexico.

Non-clinic children: Children attending public and parochial schools who do not receive mental health services.

Personalism: Inner qualities of a person that give self-respect and earn the respect of others.

Socialization: The process whereby the helpless infant gradually becomes a self-aware, knowledgeable person, skilled in the ways of the culture into which he or she is born (Giddens, 1991). It is the shaping of a person's social being (Rose, 1979).

Spiritualism: An emphasis on spiritual values, with a willingness to sacrifice material satisfaction for spiritual goals.

Assumptions

For the purpose of this research, the following assumptions were made:

1. Children participating in this study were able to understand and follow the instructions for the KFD.
2. Children projected unconscious feelings onto their KFDs.
3. Children provided valid and reliable demographic information.

Organization of the Study

Five chapters constitute the written report of the study.

Chapter 1 includes the introduction, statement of the problem, purpose of the study, importance of the study, research questions, statement of hypotheses, theoretical framework, delimitation and limitations of the study, definition of terms, and assumptions.

Chapter 2 reviews the literature on people of Mexican descent, their culture, their family and socialization of their children, the process of acculturation, culture and self-concept, and the KFD.

Chapter 3 describes the methodology, including the type of research, population and sample, sample size, variables, instrumentation, procedure, null hypotheses and statistical analysis, and qualitative analysis.

Chapter 4 presents the findings from the study.

Chapter 5 contains a summary of the study, discussion of the findings, conclusions, and recommendations for further research.

CHAPTER II

LITERATURE REVIEW

Introduction

This chapter presents a review of the literature from various studies on acculturation and the Kinetic Family Drawing Technique. The different areas that were searched included: inherent problems in the acculturation process, the need for developing culturally appropriate intervention strategies, the development of the Kinetic Family Drawing technique, reliability and validity of the KFD technique, the use of the KFD in crosscultural studies, and the Mexican population and its culture.

Inherent Problems of the Acculturation Process

The task of becoming involved in a mainstream culture, and a corresponding disengagement from one's culture of origin, leads individuals into experiencing a process known as acculturation (Rogler, Cortez, & Malgady, 1991). Reports on acculturation and ensuing stress increased during the last

decade (Giordano, 1994; Gil et al., 1994; Vega, Khoury, Zimmerman, Gil, & Warheit, 1991).

Migration is likely to disrupt attachments to supportive networks in the society of origin and to impose on the migrant the difficult task of incorporation into the primary group of the host society inducing high levels of stress on those experiencing the acculturation process (Rogler et al., 1991). Stress can occur as a result of the acculturative process, and includes issues such as language problems, perceived discrimination, perceived cultural incompatibility, and commitment or lack of commitment to culturally prescribed values or behaviors (Vega et al., 1991).

Historically, immigrant groups in the United States have been characterized by high levels of behavioral disorders and family disruption. The implication has been that the etiology of family disruption among these immigrant groups is related to the nature of the acculturation process (Szapocznik, Scopetta, & Kurtinez, 1978). Berry and Kim (1988), in their review of the literature, pointed out that during the process of acculturation migrants' mental health is altered. Stonequist (1961) and Wallace (1970) argued that any person or group of people undergoing cultural change and cultural conflict are vulnerable to suffering and loss of

self-esteem and other emotional and personality distress. Other studies have suggested that conditions of cultural conflict can lead to psychological distress in individuals of ethnic minorities (Dworking, 1965; Nájera, 1990; Sommers, 1964).

In the last 10 years there has been a considerable amount of discussion on the effects of migration on children (Díaz & Santiago, 1998). Chartouni (1992) compared the KFDs of American Lebanese with American Caucasian children. Her study showed that American Lebanese children drew their families doing things together more often than the American Caucasian children. The findings suggest that even though American Lebanese children are open to Western ideas and style of living prior to immigration, they still acquire and retain some of their traditional family cultural values.

An expanding body of studies indicates that acculturation is linked to deterioration of family functioning, changes in household structures, high levels of personal disorganization, adolescent pregnancy, anxiety, depression, drugs, alcohol, and changes in traditional values and gender roles (Amaro, Whitaker, Coffman, & Heeren, 1990; Cortez, 1994; Gil et al., 1994; Vega & Amaro, 1994). It has also been reported that acculturation is

associated with family maladaptive interactions, intergenerational conflicts, and may produce intercultural conflicts (Szapocznik & Kurtinez, 1980; Szapocznik & Truss, 1978).

In general, some areas of family functioning and lifestyle are affected negatively by cultural changes, while other areas are not affected (Baca-Zinn, 1995; Hurtado, 1995; Solis, 1995; Williams, 1990). These cultural changes take the form of stable biculturalism rather than complete assimilation into the dominant culture. Researchers have found that many Hispanic Americans seem to be bicultural (Hurtado, 1995; Padilla, 1994; Rueschenberg & Buriel, 1995; Saldana, 1995). Ramírez (1983) pointed out that the unique acculturation experiences of Mexican American Families can produce a bicultural adaptation to U.S. society.

Acculturation Process and Counseling

In the field of counseling, increasing importance is being placed upon how culture, race, ethnicity, and gender affect communication styles (Ivey, 1981, 1986; Ivey, Ivey, & Simek-Morgan, 1993; Sue, 1977, 1991; Sue & Sue, 1990). The process of counseling may be antagonistic to the cultural styles of helping deemed appropriate for any particular ethnic group.

Multicultural specialists are beginning to realize the need for developing culturally appropriate intervention strategies in working with minority clients and groups.

A study in which 60 Mexican-Americans were interviewed with several acculturation scales found that the majority of Mexican-American women who discontinued individual therapy within two sessions were less acculturated than those women who continued therapy beyond five sessions (Miranda & Castro, 1977). The multicultural counseling literature suggests that failure to understand and take into consideration the cultural assumptions of counseling may result in ineffectiveness or cultural oppression. For example, minorities are often victims of psychological helping models that view them as inferior, deprived, or deficient in desirable characteristics found in the majority societal group (Ponterotto & Casas, 1991; Sue & Sue, 1990; White & Parham, 1990). This generally occurs because the professional is unaware of the cultural values, biases, and assumptions of ethnic and cultural groups they intend to help.

Multicultural specialists are increasingly recognizing the importance of racial/cultural identity development of clients in the therapeutic process (Atkinson, Morten, & Sue,

1993; Rowe, Bennett, & Atkinson, 1994). These specialists strongly imply that the stage or level of identity attained by the minority individual may dictate different counseling strategies and approaches. These implications strongly suggest the need to understand diverse stages or levels of acculturation of ethnic groups being served by mental health professionals. Chuah (1992), after studying the KFDs of Chinese American children, recommended that further studies be conducted to better understand the experiences of the first and second generation of minority groups in the United States.

The Mexican Population

The data available in the United States show that the overall Hispanic population in the U.S. rose 48% from 1990 to 1998. The Hispanic/Latinos were the fastest growing ethnic group. The United States of America has the fifth-largest Hispanic/Latino population in the world (U.S. Bureau of the Census, 1998). Although persons of Spanish origin are found in every state, more than half (55%) of U.S. Hispanics/Latinos live in California and Texas alone (U.S. Bureau of the Census, 1998). Of the over 30.8 million Hispanics in March 1998, 64.5% were of Mexican ancestry.

The Mexican-descent population is one of the largest ethnic minority groups in the United States currently being underserved by the mental health profession. The needs of this ethnic group may be as many as the Caucasian-Americans, and it is plausible that conflict between their cultural life-style and that of the majority society can be distressing to them. Guinn (1998), for instance, indicated that Mexican-Americans and other Latinos have more mental health problems, given the high-stress indicators (poverty, prejudice, and so forth) in their lives.

A growing body of empirical research has contributed some information on the Mexican-American's mental health status and perception and use of psychotherapeutic services (Acosta & Sheehan, 1978; Acosta, Yamamoto, Evans, & Skilbeck, 1982; Franco & Le Vine, 1980; Roberts, 1980, 1981; Rueschenberg & Buriel, 1989, 1995), but it seems that more research is needed to come to a clearer understanding of their intricate cultural values and acculturation process (Rueschenberg & Buriel, 1995). The extensive social, economic, and ethnic diversity among Spanish-origin groups in the United States and the relative shortage of empirical studies on some of these groups suggest the need for care in generalizing about recent trends in family and household

structures among Hispanics as a single population. As Portes and Truelove (1987) observed, some subgroups of the Hispanic/Latino population are not yet settled, but continue expanding and changing in response to uninterrupted immigration and to close contact with events in their home countries, as is the case with the population of Mexican origin. This implies continual reinforcement of traditional cultural patterns of family organization which prevail in their country of origin, whereas family patterns among groups with a longer history of settlement and acculturation in the United States are more likely to reflect trends in family and household structures and dynamics characteristic of the population at large (Bean & Tienda, 1987; Vega, 1990).

The Culture of Mexican-Descent People

Familistic Orientation

One of the most persistent generalizations in the social sciences literature about the population of Mexican origin is their strong familistic orientation, or adherence to familistic values (Ramirez & Arce, 1981). Bean and Tienda (1987) assessed the extent to which groups of Mexican origin exhibit demographic behaviors consistent with familistic

orientations, including marriages and household behaviors. They argued that if family relationships assume greater importance among Mexicans than Caucasians, such an orientation should be reflected in differential patterns of marital instability, in the composition of household, and in other forms of family and household behavior.

Extended family ties tend to be characteristic of the families of Mexican descent. Padilla (1979) indicated that their family connections and the frequency of contact among members tend to be greater than those of Caucasian-Americans. The extended family often includes both the immediate nuclear family and relatives, life-long friends, and kin created through religious customs (Acosta, 1984).

With respect to other features of family and household structures, families of Mexican origin are characterized by many of the same trends that affect the situation of non-Hispanic White families. Among the population of Mexican-origin over the past 3 decades, social forces have decreased the percentage of husband-wife families, increased the percentage of other families (the vast majority of which are female-headed), and increased the percentage of nonfamilies (Bean & Tienda, 1987).

As is the case among other groups, the employment of Mexican women outside the home has begun to undermine the economic and cultural bases of male power in the family, and gender role expectations are changing as more and more Mexican couples adopt modern egalitarian role relationships. But in spite of these changes, the Mexican population may still adhere to ethnic customs and cultural values in other areas of family life (Baca-Zinn, 1982).

Acculturation Issues

Although the Hispanic/Latino population, in general, and its acculturation process have been studied (Padilla, 1992, 1994), little empirical research has been done on the psychological effects on Mexican-Americans of acculturation to Anglo-American lifestyles (Acosta, 1984; Alva, 1985; Guinn, 1998; Rueschenberg & Buriel, 1989, 1995). Likewise, although little clear and definite empirical findings have shown the negative effects of the acculturative stress, these studies suggest that conflict between one's culture and values and those of the majority society can be distressing. Stonequist (1961) and Wallace (1970) argued that any person or group of people undergoing cultural change and cultural conflict are vulnerable to suffering and loss of self-esteem and other emotional and personality

distress. Other studies have suggested that conditions of cultural conflict can lead to psychological distress in individuals of ethnic minorities (Dworking, 1965; Nájera, 1990; Sommers, 1964).

Unfortunately, findings from rural and isolated groups of Mexican-Americans, which appear to be relevant and valid for the specific groups studied, have been generalized to the majority of Mexican descent people, who reside primarily in large urban areas (Acosta, 1984), where "acculturative stress" is likely experienced with greater intensity.

Literature strongly indicates that there is a direct correlation between a Hispanic/Latino child's level of acculturation and his or her psychological behavioral adjustment, and that strong identification with the Anglo-American culture was accompanied by more psychological distress than maintenance of a bicultural identity (Buriel, Calzada, & Vazquez, 1982; Guinn, 1998; Vega, Kolody, & Noble, 1993).

Some models and scales to measure the individual's level of acculturation have been developed that should prove to be of great assistance both in making clinical decisions about the relevance of cultural or noncultural treatment modalities and also in the development of further information on the psychological impact of acculturation in

the lives of Mexican-descent people (Cuellar, Harris, & Jasso, 1980; Padilla, 1980).

Negy and Woods (1993) pointed out that measurements assessing Hispanic-Americans' acculturation more often than not assessed primarily language preference (Cuellar, Harris, & Jasso, 1980; Griffith, 1983; Padilla, 1980; Taylor, Hurley, & Perea, 1987) and generation status (Cuellar et al., 1980; Griffith, 1983). These measurements are being criticized because their use can only serve to infer acculturation instead of assessing acculturation more specifically. These instruments may pose two inherent mistakes: (1) the assumption that the extent to which Mexican-Americans master the English language strongly correlates with their adoption of Anglo-American beliefs and behaviors, and (2) the assumption that length in generation status logically increases acculturation.

Numerous persons of Mexican ancestry reside in areas like southern Texas, along the Mexican borders, and in certain areas of large cities such as Los Angeles, San Antonio, Houston, Dallas, etc. In these cities, despite being within the United States' boundary, Spanish is the predominant language, and the majority of residents share similar familial, religious, and other cultural values

commonly associated with traditional Hispanic or Mexican culture (Negy, 1993). Thus, second- and later-generation Mexican-descent people may not necessarily acculturate in the direction of the Anglo-American culture, but toward the "Barrio culture" (Buriel, 1975). It has been pointed out that variations in acculturation amongst Hispanic-Americans should be strongly associated with variations in familism and socialization (Keefe, 1980; Sabogal et al., 1987).

Negy (1993) proposed that, if there are distinguishing values unique to the two cultures, assessing the extent to which one adheres to those values may more specifically and accurately designate a person's acculturation level along a continuum than assessing language preference and generation status. It seems very appropriate, therefore, that in a study of acculturation processes, a correlation be made between a popularly used instrument to measure acculturation, such as Cuellar's Acculturation Rating Scale for Mexican-Americans (Cuellar et al., 1980), and an instrument that measures distinguishing values between cultural groups, and both instruments should correlate moderately (Negy, 1993).

The Family Attitude Scale developed by Ramirez (1967) taps into values that seem more important to Hispanics than

to Anglo-Americans. The Scale is subcategorized into eight subscales: (1) loyalty to family, (2) strictness of child rearing, (3) respect for adults, (4) separation of the sex-roles, (5) male superiority, (6) time orientation, (7) religiosity, and (8) cooperation.

None of the instruments cited above have been appropriately designed for use with children. The potential severity of the problem of acculturation for Mexican children as they move into the Caucasian-American lifestyle is not currently known. Instruments that may aid in achieving deeper understanding in the process of acculturation of children of Mexican origin, and in understanding the needs of these children, as well as the development of programs to meet those needs are of prime importance.

The Kinetic Family Drawing

Children's drawings have long been used by psychologists for assessment of many aspects of personality (Klepsch & Logie, 1982). The KFD, developed by Burns and Kaufman (1970), is one method of assessing children's family drawings. It has been hypothesized that children's family drawings provide information concerning the children's perception of family members and their interaction patterns

(Hulse, 1951). Hulse developed a method called Draw-A-Family (DAF), where the child is asked only to "draw your family." The results of this technique render rigid and non-interacting family drawings.

Burns and Kaufman (1970, 1972), based on their experience with 10,000 drawings from children, developed the KFD, which asks children to draw a picture of everyone in their own family, including themselves, doing something. In this manner the children are encouraged to depict their family as a dynamic and active unit. The tool purports to assess the children's self-concept and perception of the interpersonal relationships within the family (Mostkoff & Lazarus, 1983). The KFD has become a popular projective instrument, used extensively in clinical work with children (Stawar & Stawar, 1989). Mortensen (1991) said that "children's drawings have always attracted interest because of their immediate emotional appeal; but only for about a century have they been subjected to systematic, scientific studies" (p. ix). Knoff and Prout (1985a, 1985b) summarized the usefulness of projective drawings in assessing children's personalities: (1) as an "icebreaker" between the examiner and the child; (2) as a sample of behavior that involves a child's reaction to a one-to-one child-examiner

interaction; (3) as a projective technique that gives insight into the interaction between a child's or adolescent's personality and his or her perceptions of relationships among peers, significant others, family, and school, and (4) as a technique linked to a clinical diagnostic intervention.

The validity of the Kinetic Family Drawing has been studied by a number of researchers (Bauknight, 1977; Holtz, Brannigan, & Schofield, 1980; Isaac & Levine, 1984; Levenger, 1975; Monttinen, 1988; Tharinger & Stark, 1990). Raskin and Pitcher-Baker (1977) reported significant differences between the Kinetic Family Drawing from 50 kindergarten and first-grade children with perceptual-motordelays and a control group randomly selected of 50 children without such delays. The KFDs were scored by two raters for indicator of isolation-rejection, body concerns, and sibling rivalry. The results suggest that isolation-rejection and body concerns differentiated the children who show delayed development from those who do not. Rivalry was not a significant discriminator. McPhee and Wegner (1976) developed an objective scoring guide and investigated KFD styles. Five judges evaluated children's KFDs and analysis of variance assessed adjustment

status. The results confirmed the general existence of KFD style. In another study Myers (1978) developed an objective KFD scoring system of 21 measurable KFD styles. It was found that four of seven sets of extracted component scores significantly differed between young emotionally disturbed and young emotionally well-adjusted groups. Wright and McIntyre (1982) developed a standardized scale for scoring Kinetic Family Drawings of depressed patients who were hospitalized and diagnosed with a major depressive disorder. Results showed that family drawings of depressed patients were markedly different from those of normal controls. It was concluded that it is possible to standardize a useful and reliable scoring of KFDs of depressive patients.

Stawar and Stawar (1989) found differences in the drawings of a group of boys who were referred to a mental health center with a variety of complaints and a group of normal boys. In 1988, Hackbarth found the KFD to be a valid tool to detect differences between the sexually abused children and those who had not been identified as such. Conant (1988) found also the KFD to be useful in differentiating clinic and non-clinic populations, boys and girls, and young and older children.

Reliability with the KFD has been related primarily to the effective evaluation of raters, or judges, and the presence of a well-operationalized objective scoring system. Bauknight (1977), in a study of withdrawn and normal children ages 8 and 9, on the basis of four categories reported a high inter-rater reliability among the three raters who identified children from their drawings who were categorized as withdrawn. The reliability of the KFD has been studied by a number of researchers who have found it to score high, ranging from .67 to 1.00 with a median reliability of .87 (Cummings, 1980; Layton, 1984; McPhee & Wegner, 1976; Mostkoff & Lazarus, 1983; Myers, 1978). Cummings (1980) reviewed the scoring methods used by McPhee and Wegner (1976), O'Brien and Patton (1974), and Myers (1978) and found that all three methods produced high inter-rater reliabilities when they were examined by two males and two female well-trained examiners using these three objective scoring methods to observe differences among the drawings of behavior-disordered, learning-disabled, and regular-class children. The test-retest reliability showed instability, suggesting that perhaps the KFD is quite sensitive to children's transitory personality states (Knoff

& Prout, 1985b), or perhaps it is a characteristic of some projective measures (Gardano, 1988).

Mostkoff and Lazarus (1983) studied the inter-rater and test-retest reliability of 20 variables. They found that it ranged from 86 to 100%, with a mean of 97% over two raters. Layton (1984) also demonstrated high interscorer reliabilities for selected KFD variables. Examiners rated the drawings using a list of 142 signs which she believed indicated family or emotional problems along with 14 items which indicated health family functioning. The results showed high inter-rater reliability for 133 of the 157 signs at the .05 level of significance.

Cross-Cultural Studies With the KFD

The KFD has shown promise in cross-cultural use. Studies of KFDs on non-White populations include comparisons, the KFD as a tool, and validation studies. Ledesma (1979) conducted an investigation on the KFDs of well-adjusted Filipino adolescents and concluded:

The KFD is sensitive to different lifestyles existing within the same culture and the results show that social economic status significantly influences the types of actions depicted. This points out the importance of establishing normative data not only for a particular culture but also for the different socioeconomic groups within a culture. (pp. 68, 69)

Cabacungan (1985) compared drawings of 113 Japanese and 84 Filipinos, ages 9-12 years. The results, when compared by culture and sex, indicated that culture significantly affected the frequency of drawing the actual family size, action depicted, communication and nurturing levels, and styles used. Culture did not significantly affect figure size and interfigural distance. Sex significantly affected style usage. Culture and sex did not significantly affect the nature of actions depicted.

A number of studies of KFDs of children of various American subcultures have been completed during the last several years. These studies thus far have included Euro-Caucasian, Blacks, Hispanics, Lebanese, Japanese, Chinese, Native Americans, and three religious groups (Catholics, Lutherans, and Seventh-day Adventists) (Handler & Habenicht, 1992). The studies provided insight into the differences of dynamics, customs, and values practiced in the various cultural groups that were studied, and suggested recommendations for further study of the acculturation process, especially in cultures that are in transition.

Nuttall et al. (1988) compared children from China and children from the USA and found that the drawings reflected the respective culture and social values of the two groups.

They suggested that cultural and socioeconomic differences regarding family dynamics and functioning have a significant effect on children's drawings. Other studies have also suggested usefulness and applicability of the KFD to other cultures and populations.

Cho (1987) did a validity study of the KFD among Chinese children in Taiwan and demonstrated the usefulness of the instrument for the Chinese population. Shaw (1989) found the KFD a valid and useful instrument for gaining information about how Black children in the United States perceive themselves and their family relationship. Chartouni (1992) compared the KFDs of American Lebanese with American Caucasian children. Her study showed that American Lebanese children drew their families doing things together more often than the American Caucasian children. The findings suggest that even though American Lebanese children are open to Western ideas and style of living prior to immigration, they still acquire and retain some of their traditional family cultural values.

Though the KFD appears to be a viable instrument for assessing children's perspectives of self and family relationships, most KFD studies have focused on Caucasians, and relatively few studies have focused on other cultures

(Burns, 1982; Cabacungan, 1985; Chartouni, 1992; Cho, 1987; Chuah, 1992; Gregory, 1992; Shaw, 1989). Osorio (1996) utilized the KFD to study family structures and substance abuse in Hispanic families, but no studies have focused on the KFD technique as an instrument to study the acculturation process of Mexican-descent children.

CHAPTER III

METHODOLOGY

Type of Research

This study is a comparative and descriptive study seeking to discover the perceptions of self and family relationships of children of Mexican origin as revealed in their KFDs. It includes a comparison between the Mexican and Caucasian-American children's self-perception and family relationships to discover how the group of Mexican-origin children proceeds through different levels as they become acculturated to the majority culture, and whether these levels are revealed in their KFDs. Part of the study is qualitative in nature in order to provide information which quantitative analysis cannot provide.

Population and Sample

The subjects of this study were children from school districts in Texas who voluntarily participated. The type of school district chosen for this study was selected on the basis of children being served from both ethnic groups,

Mexican-descent and Caucasian-American, in order to obtain as representative and valid a sample as possible. The subjects for this study were selected considering the levels of acculturation used by Olmedo (1980) and Padilla (1980).

Only Grades 3 through 6 were included in all participating schools. Both sample groups were drawn from non-clinic children. From each school only those children with parents' permission were included. The Caucasian-American sample was drawn from the same school districts, children descending from two or more generations of Europeans born and raised in the United States.

Sample Size

Power analysis showed that an adequate sample size for comparisons could be 100 subjects in each one of the acculturation subgroups of Mexican children, and a group of 100 Caucasian-American children for comparison purposes. For this analysis the value of alpha was set at 0.05 with a moderate effect size ($d=.5$), giving power of .94. The selection of the three groups was done through the use of a preliminary questionnaire (see appendix A) based on the criteria used by Olmedo (1980) and Padilla (1980). A number of school districts were selected in central and north

Texas. Schools within those districts were selected randomly and invited to participate in the study. Six private and nine public schools accepted and participated voluntarily in the study.

Variables

Independent variables include: Race, sex, age, acculturation level (determined by generation, length of residence, and language spoken at home or with friends, and language of preference). Based on comments made in previous cross-cultural research using the KFD (Burns, 1982; Chuah, 1992; Handler & Habenicht, 1992), certain dependent variables were selected to be included in this study, because they seemed to hold some promise for accurately reflecting particular characteristics of families of Mexican descent, and particular characteristics of Caucasian-American families.

Action Variables

The following 18 variables regarding activity were used:

1. ACTSELF: Activity level of self
2. ACTIMOM: Activity level of mother
3. ACTIDAD: Activity level of father

4. ACTIOTHR: Activity level of others in family
5. ACTYSELF: Activity type of self
6. ACTYMOM: Activity type of mother
7. ACTYDAD: Activity type of father
8. ACTOTHER: Activity type of others in family
9. COMSELF: Communicating self
10. COMMOM: Communicating mother
11. COMDAD: Communicating father
12. COMSIB: Communicating siblings
13. COMFAM: Communicating with extended family
14. NURSELF: Nurturing self
15. NURMOM: Nurturing mother
16. NURDAD: Nurturing father
17. NUROTHER: Nurturing other members in family
18. RESYMB: Religious symbols or activities.

Variables Regarding Figure Characteristics

The following 19 variables regarding figure characteristics were used:

1. BODSELF: Body completion of self
2. BODMOM: Body completion of mother
3. BODDAD: Body completion of father
4. TEESELF: Teeth in self
5. TEEMOM: Teeth in mother

6. TEEDAD: Teeth in father
7. FACEXSEL: Face expression of self
8. FACEXMOM: Face expression of mother
9. FACEXDAD: Face expression of father
10. FACOMSEL: Face completion of self
11. FACOMMOM: Face completion of mother
12. FACOMDAD: Face completion of father
13. RSIZESELF: Relative size of self
14. MOMPRES: Mother present
15. DADPRES: Father present
16. GRNDPRES: Grandparents present
17. NUMBSIB: Number of siblings present
18. NUMBREL: Number of relatives present
19. NUMBFAM: Number of family members

**Variables Regarding Position,
Distance, and Barriers**

The following 12 variables regarding position, distance, orientation, and barrier were used:

1. ASCSELF: Ascendent self
2. ASCMOM: Ascendent mother
3. ASCDAD: Ascendent father
4. ORINTDM: Orientation between dad and mom

5. ORINTDS: Orientation between dad and self
6. ORINTMS: Orientation between mom and self
7. ORINTMD: Orientation between mom and dad
8. ORINTSD: Orientation between self and dad
9. ORINTSM: Orientation between self and mom
10. BARRISM: Barrier type between self and mom
11. BARRISD: Barrier type between self and dad
12. BARRIMD: Barrier type between mom and dad

Like-to-Live-in-Family Variable

An overall impression of the family variable was included: LKLIVFAM: General impression of the family.

Other Pertinent Variables

The scoring for the ascendent self, mother, and father may provide valuable clinical information for an individual child, but the group means may not give useful information. Therefore, those variables are presented in percentages according to the position of the figure on the paper. Extended family ties tend to be characteristic of the families of Mexican descent. Padilla et al. (1979) indicated that their family connections and the frequency of contact among members tend to be greater than those of Caucasian-Americans. The extended family often includes both the

immediate nuclear family and relatives, life-long friends, and kin created through religious customs (Acosta, 1984, cited in Martinez & Mendoza, 1981). Therefore the following variables were included in this study:

1. ACTISIBS: activity level of siblings
2. COMSIBS: communicating siblings
3. GRNDPRES: grandparents present
4. COMGRNDP: grandparents interactions
5. OTHRPRES: other family members present
6. COMOTHRS: other family members interactions
7. RELSIMBS: religious symbols/activities

Demographic information of grandparents and/or other relatives is included in this study also.

Instrumentation

Kinetic Family Drawing

The KFD is a projective assessment tool. A description of the development and references to studies on the validity and reliability of this instrument were given in chapter 2. The Kinetic Family Drawing has many characteristics that enable it to be used for research in understanding other cultures.

1. First, there is no language barrier. Nuttalls et al. (1988) demonstrated that it is possible to conduct studies in places where the researcher does not know the language.

2. Only minimal verbalization is required. Thus, the KFD is suitable for use with those people who are not very verbal, or have low proficiency in the English language. It is useful in cultures where people are not encouraged to express their feelings, and/or are not accustomed to doing so.

3. The KFD is especially useful with children since most children enjoy drawing. Also, it is one of the few instruments available for understanding young children's self-perceptions and family interpersonal relations (Chuah, 1992).

5. Drawing does not require much skill. The subject is free to draw or not to draw whatever he/she desires.

6. The KFD is especially useful when family relationships are sensitive issues. By putting symbols on paper, a person feels more comfortable expressing concerns than on a more explicit questionnaire.

The development and evolution of the Kinetic Family Drawing is described in the review of literature in chapter

2. The instructions, as given by Burns and Kaufman (1970), consist of asking a child who is comfortably seated to draw on a sheet of plain 8 1/2" by 11" white paper his or her picture of "everyone in his or her family, including self, **DOING** something." Burns' instructions (1982) also include drawing "whole people, not cartoons or stick people, with every one **DOING** something."

The scoring system developed by Burns (1982) describes 80 variables relating to the actions of the self, mother, and father figures, the positions, the distance, and the barriers of self, the styles of drawing, and general impression of the drawing. After the child finishes his/her drawing, he/she is asked to explain the picture to the examiner. This study used primarily a modified KFD scoring system developed by Habenicht (Chandler & Habenicht, 1992).

Her system observes ascendance of figures and barriers between figures, compares the size of figures, scores barriers according to type rather than number, and adds other variables not included in Burns's system, such as: number of siblings present, grandparent(s) present, number of other live-in relatives present, religious symbols present, etc., variables that are considered relevant in the study of other cultures. The direction of scoring was adjusted to facilitate empirical analysis (see Appendix B).

Measures of Acculturation

Three different levels of individual acculturation were measured according to the following dimensions of acculturation used by Olmedo (1980) and Padilla (1980):

Unacculturated--all family members born in Mexico, parents monolingual Spanish-speaking, having immigrated to the United States and having lived here for up to 10 years.

Moderately acculturated--parents born in Mexico and having resided in the United States for more than 10 years; children born in the United States, parents monolingual Spanish-speaking or Spanish-dominant and children with English-speaking ability.

Acculturated--both parents and children born in the United States, bilingual or English-speaking preference for both parents and children.

Procedure

A letter from the research adviser and a written request outlining the purpose, value, and procedure of the study were submitted to different schools selected by the predetermined criteria. After permission had been obtained from the schools, a brief screening questionnaire requesting

the children's and their parents' birthplace was given in order to obtain a stratified sample relating to generation and gender. Letters, and follow-up letters as needed, were sent to the parents, written both in Spanish and English, soliciting their permission. (See appendices A and B for letter samples and other forms that were used for this research.)

On the prearranged day at the school, each participating child was given individually the instructions for the KFD and asked to draw his/her picture. For those children who did not understand the instructions in English the instructions were provided in Spanish. Each child was allowed to use as much time as he/she wanted in drawing the picture. After the drawing had been completed, the child was interviewed to obtain more demographic information about the child and the family. The drawings and interviews were numerically coded to protect the anonymity of the children. At the end of the process the participating children received a token of appreciation.

Null Hypotheses and Statistical Analysis

For the first research question, How do children of Mexican descent draw their families? a descriptive account

was rendered from observation of the drawing process, interviews, and an examination of the drawings for evidences of cultural differences and any perceived levels of acculturation, family interactions, and other differences.

For the second research question, How do the KFDs of males and females differ? Two hypotheses were tested:

Null Hypothesis 1: There is no significant difference between the KFDs of boys and girls of Mexican descent with respect to selected KFD variables. This hypothesis was tested by the t-test for means of two independent samples and by the chi-square test, as the assumptions of the parametric test may not be valid for some of the variables.

Null Hypothesis 2: There is no linear combination of KFD variables which significantly discriminates between boys and girls of Mexican descent. This hypothesis was tested by discriminant analysis.

For the third research question, How do the KFDs of unacculturated, moderately acculturated, and acculturated children of Mexican descent differ from one another and from those of Caucasian children? two hypotheses were tested.

Null Hypothesis 3: There are no significant differences among the KFDs of acculturated, moderately acculturated, and acculturated children of Mexican descent and Caucasian-

American children. This hypothesis was tested by two procedures: 1) one-way ANOVA and 2) chi-square, as the assumptions of the parametric test may not be valid for some of the variables.

Null Hypothesis 4: There is no linear combination of selected variables which significantly discriminates among unacculturated, moderately acculturated, acculturated children of Mexican descent, and Caucasian-American children. This hypothesis was tested by discriminant analysis.

All hypotheses were tested at the alpha level of .05.

CHAPTER IV

FINDINGS

This chapter presents information obtained from the sample studied and an analysis of the responses to the research questions. It is divided into four parts: (1) demographic data of the sample, (2) KFD basic data, (3) descriptive and qualitative findings of the sample, and (4) the tests of the hypotheses.

Demographic Data of the Sample

The subjects for this study were 434 children, 320 of Mexican descent, and 114 Caucasian-Americans in Grades 3 through 6 from the North and South Central area of Texas. The communities chosen for this study included rural, semi-rural, small cities, and large cities. The schools that participated in the study served a population that offered an adequate representation of Mexican-American and Caucasian-American children. These consisted of three small and three medium-size religiously affiliated schools, and nine public schools.

Sex and Grade Levels

The Mexican-descent sample was divided into three different groups representing acculturation levels: unacculturated, moderately acculturated, and acculturated. The group classified as unacculturated included 48 boys and 63 girls; the moderately acculturated group included 64 boys and 45 girls; and the acculturated group included 50 boys and 50 girls. The Mexican sample included 21 children in third grade, 81 in fourth grade, 146 in fifth grade, and 72 in sixth grade. Table 1 presents the data for sex and grade level of subjects for all groups.

The sample of Caucasian-American children included 60 boys and 54 girls, 34 from the third grade, 31 from the fourth grade, 21 from the fifth grade, and 28 from the sixth grade.

TABLE 1
SAMPLE DISTRIBUTION BY GRADE AND SEX

Grade	Mexican			Caucasian		
	Male	Female	Total	Male	Females	Total
3	12	9	21	19	15	34
4	39	42	81	13	18	31
5	67	79	146	13	8	21
6	43	29	72	15	13	28
Total	161	159	320	60	54	114

**Birthplace of the Mexican-
Descent Children**

Of the children of Mexican descent, 111 were born in Mexico and 209 were born in the United States of America.

**Number of Years Lived in
the United States**

Table 2 presents data concerning the number of years the subjects have lived in the United States.

TABLE 2
SAMPLE DISTRIBUTION BY LENGTH OF
TIME LIVING IN THE UNITED STATES

Years	Subjects	%
0-1	49	15.31
2-3	36	11.25
4-5	26	08.13
6-7	31	09.69
8-9	46	14.38
10	32	10.00
>10	100	31.25
Total	320	100.00

Of the children of Mexican descent, 111 children have lived in the United States 5 years or less, 109 children for 5 to 10 years, and 100 children reported that they, as well as their parents, have lived here for more than two generations.

Language Preference

Among the Mexican-descent children, 128 (40%) reported Spanish as their preferred language, 61 (19%) reported equal preference for English or Spanish, and 131 (41%) reported English as their preferred language.

Birthplace of Parents

The Mexican sample was divided into three groups. In the first two groups the parents were born in Mexico (69%). The third group was composed of 100 (31%) acculturated children. Parents and children in this group were born and have lived in the United States of America for at least two generations. The control group was composed of at least third-generation Caucasian-American children.

Educational Level of Parent(s)

Table 3 presents the data of the highest level of education of the Mexican and Caucasian subjects' parent(s). Among the Mexicans approximately two thirds had no education or only an elementary level, while 17% had a secondary education. Ten percent had a college or graduate education. The parents of the Caucasian-Americans had higher educational levels: one-fourth secondary and over 70% college or graduate level.

TABLE 3
EDUCATIONAL LEVEL OF PARENTS

Level of Education	Mexicans	%	Caucasians	%	
None	112	35.00	0	0.00	
Elementary	119	37.19	0	0.00	
Secondary	55	17.19	28	24.56	
College	21	6.56	65	57.02	
Graduate	13	4.06	17	14.91	
Don't Know	0	0.00	4	3.51	
Total	320	100.00	Total	114	100.00

Marital Status of Parents

In the Mexican sample, 72.03% of the subjects came from intact families, with both parents staying in the first marriage; 9.27% had remarried parents; 13.10% had divorced parents; and 5.60% had single parents.

In the Caucasian sample, two-thirds of the children came from intact families, with both parents staying in the first marriage; approximately 12% had remarried parents; 8% had divorced parents; and about one-tenth of the children had single parents.

Live-in Relatives

In the Mexican sample, over one-fourth of the children had no relatives living with them. The Mexican descent sample was further analyzed by the three levels of acculturation in regards to the number of live-in relatives. As the level of acculturation increased, the number of live-in relatives also increased. Three-fourths of the unacculturated group reported no live-in relatives, while three-fourths of the moderately acculturated group reported 4-7 live-in relatives. Most of the others reported even more. Nine-tenths of the acculturated group had 4-7 live-in relatives.

Tables 4 and 5 present the basic description of the Mexican-descent children as a total group, and by the three groups representing the different levels of acculturation. In the Caucasian-American sample, almost 90% reported no extended family members living in their home. Three and a half percent reported 1 relative, and about 7% reported 2 or more relatives living with them. Table 6 presents the data for this sample, and Table 7 presents the data for the number of family members.

TABLE 4
 NUMBER OF LIVE-IN RELATIVES FOR
 MEXICAN-DESCENT SAMPLE

Number of relatives	Subjects	%
0	84	26.25
1	9	2.81
2	9	2.81
3	13	4.06
4	53	16.56
5	59	18.44
6	51	15.94
7	16	5.00
8	6	1.88
9	7	2.19
10	5	1.56
>10	8	2.50
Total	320	100.00

TABLE 5
 COMPARISON OF LIVE-IN RELATIVES
 BY ACCULTURATION LEVELS

Live-in Relatives	I		II		III	
	N	%	N	%	N	%
0	84	75.68	0	0.00	0	0.00
1	9	8.11	0	0.00	0	0.00
2	8	7.21	0	0.00	1	1.00
3	2	1.80	3	3.67	8	8.00
4	3	2.70	11	10.09	39	39.00
5	2	1.80	28	25.69	29	29.00
6	2	1.80	30	27.52	19	19.00
7	1	0.90	13	11.93	2	2.00
8	0	0.00	5	3.67	1	1.00
9	0	0.00	7	6.42	0	0.00
10	0	0.00	4	3.67	1	1.00
11	0	0.00	3	2.75	0	0.00
12	0	0.00	2	1.83	0	0.00
13	0	0.00	2	1.83	0	0.00
16	0	0.00	1	0.92	0	0.00
Totals	111	100.0	109	100.0	100	100.00

Note. I = Unacculturated; II = Moderately acculturated;
 III = Acculturated.

TABLE 6
LIVE-IN RELATIVES IN THE CAUCASIAN SAMPLE

Number of Relatives	Subjects	%
0	102	89.47
1	4	3.51
2	6	5.26
3	1	0.88
4	1	0.88
Total	114	100.00

TABLE 7
FAMILY SIZE FOR TOTAL SAMPLE

Family Size	Mexican Sample	%	Caucasian Sample	%
2	2	0.63	1	0.88
3	12	3.75	8	7.02
4	72	22.50	41	35.96
5	86	26.88	32	28.07
6	73	22.81	21	18.42
7	32	10.00	5	4.39
8	14	4.38	3	2.63
9	9	2.81	2	1.75
10	9	2.81	1	0.88
11	5	1.56	0	.00
12	2	0.63	0	.00
13	2	0.63	0	.00
16	2	0.63	0	.00
Total	320	100.00	114	100.00

The mean family size in the Mexican sample was 5.75 members, with the most common family size of 5 members in the family (26.9%). The largest family size was 16 members; the smallest was 2, consisting of father and child, or mother and child.

The mean size for the Caucasian sample was 4.9 members; the most common size was 4 members (36%) in the family. The largest family size was 10 members; the smallest was 2, consisting of father and son. Families tended to be smaller in the Caucasian- American sample.

KFD Basic Data From the Drawings

KFD Variables Regarding Self

Table 8 presents data on the variables regarding the self. The portrayal of the self-figure by most of the Mexican-descent children was fairly complete with relatively correct size.

The mean self-activity type depicted a moderate level of activity, such as riding or doing. More than 25% percent of the children drew themselves in the top quarter of the paper, while 62% drew themselves on the middle of the paper, and 12.5% in the bottom quarter of the paper.

TABLE 8
 BASIC DATA ON THE KINETIC FAMILY DRAWING
 VARIABLES REGARDING SELF BY THE MEXICAN SAMPLE

Variable	Mean	Standard Deviation	Smallest Value	Largest Value	Range	Mode
ACTSELF	2.82	.54	0	4	4	3
ACTYSEL	4.72	.94	0	6	6	5
COMSELF	2.34	1.75	0	6	6	1
NURSELF	1.72	1.34	0	8	8	1
BODSELF	6.30	1.15	0	7	7	7
TEESELF	.97	.20	0	2	2	1
FACEXS	2.42	.89	0	3	3	3
FACSELF	2.11	.51	0	4	4	2
RSIZSE	1.55	.50	0	2	2	2
ORINTDS	1.13	.57	0	2	2	1
ORINTMS	1.23	.45	0	2	2	1
ORINTSM	1.10	.34	0	2	2	1
ORINTDS	1.01	.48	0	2	2	1
BARRISM	2.22	1.33	0	5	5	1
BARRISD	2.15	1.45	0	5	5	1

KFD Variables Regarding Family

Table 9 presents data on the family variables for the Mexican-descent sample for all three acculturation groups.

TABLE 9

BASIC DATA ON THE KINETIC FAMILY DRAWING
VARIABLES REGARDING FAMILY FOR THE MEXICAN SAMPLE

Variable	Mean	Standard Deviation	Smallest Value	Largest Value	Range	Mode
ACTMOM	2.86	.47	0	4	5	3
ACTDAD	2.52	.98	0	5	5	3
ACTOTHER	2.75	.65	0	5	5	3
ACTYMOM	4.76	.83	0	6	6	5
ACTYDAD	4.20	1.68	0	6	6	5
ACTYSIB	4.54	1.27	0	5	6	5
COMMOM	2.34	1.80	0	7	7	1
COMDAD	2.09	1.82	0	7	7	1
COMSIB	2.22	1.74	0	6	6	1
COMGRDP	.31	.88	0	5	5	0
COMXFAM	.33	1.03	0	5	5	0
NURMOM	3.03	2.04	0	8	8	1
NURDAD	1.34	1.17	0	7	7	1
NUROther	2.26	1.71	0	8	8	1
NURGRNDP	.48	1.40	0	5	5	0
BODMOM	6.43	.95	0	7	7	7
BODDAD	5.70	2.19	0	7	7	7
TEEMOM	1.00	.23	0	2	2	1
TEEDAD	.90	.39	0	3	3	1
FACEXM	2.53	.84	0	3	3	3
FACEXD	2.25	1.08	0	3	3	3
FACOMMOM	3.45	1.00	0	4	4	4
FACOMDAD	3.10	1.42	0	4	4	4
MOMPRES	.99	7.89	0	1	1	1
DAPRES	.89	.31	0	1	1	1
NUMSIB	2.40	1.53	0	8	8	2
NUMREL	.62	1.41	0	8	8	0
NUMFAM	5.75	2.02	2	16	14	5
ORINTDM	1.04	.50	0	2	2	1
ORINTMD	1.01	.47	0	2	2	1
BARRIMD	1.961	1.53	0	5	5	1
LKLIVFAM	4.53	.69	1	5	4	5

The children of Mexican descent generally drew their mother performing moderate levels of activity and the father with a slightly lower level of activity and they often drew themselves lower than the parents on the paper. The communication level of grandparents and extended family was similar and very low.

The mean rating of the variable LKLIVFAM (like-to-live-in-family, general impression of the family from the drawing by the scorer was 4.53, suggesting that the children drew a kind of family that the researcher would probably or definitely like to live in.

Descriptive and Qualitative Findings

This section describes the interview findings, the actions depicted in the drawings, and the observational findings pertaining to the Mexican-descent and Caucasian American sample.

Family Decision Making

An open-ended question was asked: Who makes the most decisions in your family? Based on the answers given, they could be categorized into: mom was the decision maker at home; dad was the decision maker at home; both parents made

the decisions; the whole family was involved in making decisions; and others, such as a grandparent, made the decisions in the family. The data are presented in Table 10.

TABLE 10
FAMILY DECISION MAKING

Decision maker(s)	Mexican Sample	%	Caucasian Sample	%
Mother	27	8.44	24	21.05
Father	158	49.38	36	31.58
Both	110	34.37	51	44.74
Grandparent	24	7.50	1	.88
Other	1	0.31	0	.00
No response	0	0.00	2	1.75
Totals	320	100.00	114	100.00

Subjects' Opinion in Family Decisions

The subjects were asked the question: How often do you give your opinion in family decisions? The choices given to the subjects were always, sometimes, and never.

The most frequent answer given by the children of Mexican descent was "always" (46.88%), followed by "sometimes" (42.19%), and lastly by "never" (10.93%). Table 11 presents the data on this question. The most common response for the Caucasian children was "sometimes"

(64.29%), followed by "never" (30.35%), and lastly by "always" (5.36%). Table 11 presents the data with the frequency of responses for the question.

TABLE 11
SUBJECT GIVES OPINION IN FAMILY MATTERS

Frequency	Mexican Sample	%	Caucasian Sample	%
Always	150	46.88	6	5.26
Sometimes	135	42.19	72	63.17
Never	35	10.93	34	29.82
No response	00	00	2	1.75
Totals	320	100.00	114	100.00

For the purpose of the qualitative analysis that follows, the description is divided into the three acculturation groups: (1) unacculturated, (2) moderately acculturated, and (3) acculturated. Dividing the subjects into these three different levels of acculturation for the qualitative analysis provides important information that the quantitative analysis of the data cannot provide.

Actions Depicted in the KFDs

Table 12 presents the KFD mother and father actions drawn by unacculturated children.

TABLE 12

KFD MOTHER AND FATHER ACTIONS
BY UNACCULTURATED CHILDREN (N=111)

Mother	Frequency		Father	Frequency	
	No.	%		No.	%
Sweeping the floor	27	24.32	Working	24	21.62
Cooking	25	22.52	Standing	16	14.41
Standing	14	12.61	Walking	12	10.81
Walking	7	6.31	Going to work	7	6.31
Cleaning the house	5	4.50	Building walls	3	2.70
Going shopping	3	2.70	Gardening	3	2.70
Fetching water	3	2.70	Teaching school	3	2.70
Washing clothes	3	2.70	Fetching water	3	2.70
Baby sitting	2	1.80	Playing w/son	2	1.80
Holding a baby	2	1.80	Raking	2	1.80
Drying clothes	2	1.80	Watering plants	2	1.80
Teaching school	3	1.80	Working/computer	2	1.80
Working/laboring	2	1.80	Filing	1	0.90
Writing	2	1.80	Burning leaves	1	0.90
Chopping food	2	1.80	Home chores	1	0.90
Feeding chickens	1	0.90	Building/fence	1	0.90
Raking	1	0.90	Shoveling	1	0.90
Reading	1	0.90	Changing/tire	1	0.90
Holding a stick	1	0.90	Open. car-trunk	1	0.90
Cutting hair	1	0.90	Using a pick	1	0.90
Carrying groceries	1	0.90	Driving a truck	1	0.90
Doing dishes	1	0.90	Playing guitar	1	0.90
Trimming a bush	1	0.90	Mopping	1	0.90
Playing with son	1	0.90	Sitting @ desk	1	0.90
Waving good-bye	1	0.90	Vacuuming floors	1	0.90
Hammering	1	0.90	Washing his car	1	0.90
			Return from work	1	0.90
			Chopping wood	1	0.90
			Sweeping floors	1	0.90
TOTAL NUMBER OF DIFFERENT ACTIONS: 26			TOTAL NUMBER OF DIFFERENT ACTIONS: 29		

Sweeping the floors and cooking were the most common activities depicted in the KFDs. These two types of activities, and others related to household chores, were the most predominant actions of the mothers.

For the mothers, actions relating to working outside the house were very minimal. The most predominant actions for the fathers in this group were actions related to work performance, standing, and walking. The actions related to household chores for the fathers were very minimal.

Table 13 presents the KFD mother and father actions drawn by children of Mexican descent from the moderately acculturated group. Almost one-third of the mothers were drawn in food-preparation activities. Other predominant house-related activities for the mother drawings included sweeping, cleaning house, doing laundry, drying clothes, setting the table, doing dishes, and others. For leisure activities only one child drew his mother playing.

The father figures were mostly drawn standing, or performing some kind of job-related activity. Gardening or other yard work was also a prominent activity for the father drawings. The father figures were portrayed enjoying more leisure activities than the mother figures.

Table 14 presents the data for KFD mother and father actions drawn by the acculturated sample.

TABLE 13

MOM AND DAD ACTIONS DRAWN BY
MODERATELY ACCULTURATED CHILDREN (N=109)

Mother	Frequency		Father	Frequency	
	N	%		N	%
Cooking	34	31.19	Standing	20	18.35
Standing	17	15.60	Working	17	15.60
Sweeping	12	11.01	Gardening	10	9.17
Laundry	12	11.01	Cooking	5	4.59
Drying clothes	8	7.34	Trimming hedges	6	5.50
Teaching school	4	3.67	Playing	5	4.59
Doing dishes	3	2.75	Sweeping	5	4.59
Gardening	3	2.75	Building	3	2.75
Cleaning	2	1.83	Holding something	3	2.75
Filling a bucket	2	1.83	Reading	3	2.75
Setting a table	2	1.83	Cleaning	3	2.75
Watching a baby	2	1.83	Feeding animals	2	1.83
Working	2	1.83	Hammering	2	1.83
Drying her hair	1	0.92	Riding a tractor	2	1.83
Putting dishes away	1	0.92	Using tools	2	1.83
Vacuuming	1	0.92	Filling a bucket	1	0.92
Raking leaves	1	0.92	Carrying a chair	1	0.92
Sitting at a table	1	0.92	Watching TV	1	0.92
Playing	1	0.92	Sitting	1	0.92
			Painting	1	0.92
			Giving a shot	1	0.92
			Smoking	1	0.92
			Shooting a gun	1	0.92
			Mowing the lawn	1	0.92
			Fishing	1	0.92
TOTAL NUMBER OF DIFFERENT ACTIONS: 19			TOTAL NUMBER OF DIFFERENT ACTIONS: 25		

TABLE 14

MOM AND DAD ACTIONS DRAWN BY
ACCULTURATED CHILDREN (N=100)

Mother	Frequency		Father	Frequency	
	No.	%		No.	%
Watching TV	18	18	Watching TV	19	19
Eating dinner	9	9	Eating dinner	10	10
Family meeting	6	6	Family meeting	6	6
At a picnic/park	6	6	At a picnic/park	6	6
Setting the table	6	6	Family worship	5	5
Fixing a Xmas tree	6	6	Riding in a car	5	5
Family worship	5	5	Fixing a Xmas tree	5	5
Playing with family	5	5	Standing	4	4
Cooking	3	3	Playing with family	4	4
Hiking with family	3	3	Hiking with family	3	3
Standing	3	3	Taking fam. picture	3	3
Taking fam. picture	3	3	Reading a story	2	2
Walking	3	3	Sitting at a table	2	2
Cleaning house	2	2	Watching child swim	2	2
Sitting at a table	2	2	Playing with son	1	1
Watch children play	2	2	Watch children swim	1	1
Talking with child	2	2	Washing a car	1	1
Going downstairs	1	1	Reading	1	1
Watch children swim	1	1	Family singing	1	1
Watering plants	1	1	Partying	1	1
Reading	1	1	Swinging	1	1
Family singing	1	1	Walking a dog	1	1
Partying	1	1	Praying	1	1
Serving dinner	1	1	Climbing light post	1	1
Swinging	1	1	Sitting on a chair	1	1
Listening to a story	1	1	Fixing a car	1	1
Walking a dog	1	1	Riding a balloon	1	1
Doing dishes	1	1	Playing the piano	1	1
Praying	1	1	Driving a car	1	1
Working in office	1	1	Mowing the lawn	1	1
Fixing a bed	1	1			
Riding a balloon	1	1			
TOTAL NUMBER OF DIFFERENT ACTIONS: 32			TOTAL NUMBER OF DIFFERENT ACTIONS: 30		

The KFD mother and father actions drawn by children from the acculturated sample show that 18 children drew their mothers watching television. Most actions for the mother and father drawings depicted leisure or recreational activities. About three-fourths of the mothers were drawn engaged in recreational activities, such as eating dinner, being at a picnic or park, fixing a Christmas tree, playing with family members, and hiking with family members, etc. The mother figure was drawn 14% of the time performing house chores. Only one time was the mother drawn working in her office.

The father figures were also depicted in recreational activities 78% of the time. Only one father figure was drawn performing house chores. Only one child drew his father, whom he identified as an electrician, engaged in a work-related action: climbing a light post.

Table 15 presents the KFD mother and father actions drawn by the Caucasian-American sample. These actions were also extensively related to recreational activities, such as those drawn by the children of the acculturated sample.

TABLE 15
MOM AND DAD ACTIONS DRAWN
BY THE CAUCASIAN CHILDREN (N=114)

Mother	Frequency		Father	Frequency	
	No.	%		No.	%
Cooking	14	12.28	Playing	15	13.16
Playing	13	11.40	Walking	14	12.28
Walking	13	11.30	Standing	9	7.89
Watching TV	8	7.02	Working	8	7.02
Picnic/Park	6	5.26	Watching TV	7	6.14
Standing	6	5.26	Picnic/Park	6	5.26
Holding a baby	4	3.51	Driving a car	4	3.51
Watch fam. play	4	3.51	Mowing the lawn	4	3.51
House cleaning	4	3.51	Gardening	4	3.51
Doing laundry	3	2.63	Eating	3	2.63
Gardening	3	2.63	Taking a picture	3	2.63
Taking a picture	3	2.63	Swimming	3	2.63
Swimming	3	2.63	Partying	2	1.75
Eating	2	1.75	Going fishing	2	1.75
Swinging	2	1.75	Returning from work	2	1.75
Skiing	2	1.75	Skiing	2	1.75
Reading a story	2	1.75	Talking to mom	1	0.88
Fishing	2	1.75	Paying bills	1	0.88
Racking	1	0.88	Yard work	1	0.88
Return from work	1	0.88	Sitting on a chair	1	0.88
Office work	1	0.88	Listening to a story	1	0.88
Mowing the lawn	1	0.88	Swinging	1	0.88
Sitting on chair	1	0.88	At the fair	1	0.88
Washing clothes	1	0.88	Family meeting	1	0.88
Doing dishes	1	0.88	Watching son play	1	0.88
At the fair	1	0.88	At the movies	1	0.88
Family meeting	1	0.88	Writing	1	0.88
Watch son play	1	0.88	Picking up a baby	1	0.88
At the movies	1	0.88	Napping	1	0.88
Baby sitting	1	0.88	Opening a car trunk	1	0.88
Setting a table	1	0.88			
Going shopping	1	0.88			
TOTAL NUMBER OF DIFFERENT ACTIONS: 32			TOTAL NUMBER OF DIFFERENT ACTIONS: 30		

About 60% of the mothers were drawn engaging in recreational activities, such as playing, walking, being in a picnic or park, watching family members play, taking a family picture, swimming, skiing, or reading a story. Fourteen children drew their mother cooking, the most common activity (12.28%). Nearly 30% of the mothers were drawn performing household chores or family responsibilities, such as cooking, house cleaning, doing laundry, gardening, caring for children. Only one child drew his mother returning from work, and one child drew his mother doing office work.

The father figures were most frequently drawn engaging in recreational activities (55%). Ten fathers (8.75%) were drawn either working or returning from work. Sixteen (14%) drew their fathers performing household-related activities. Other actions, drawn once, depicted fathers writing, talking to the mother, picking up a baby, and opening a car trunk.

Table 16 presents the actions performed by the subjects in the unacculturated sample. Activities depicting work or household chores were very common in this sample, consisting of a total of 41 (36.94%).

TABLE 16

KFD SELF ACTIONS DRAWN BY
THE UNACCULTURATED CHILDREN (N=111)

Action	Frequency	%
Standing	21	18.92
Walking	15	12.61
Playing with others	10	9.01
Walking to school	9	8.11
Playing alone	8	7.21
House chores	7	6.31
Studying	6	5.41
Reading	5	4.50
Sweeping	5	4.50
Cleaning house	3	2.70
Setting the table	3	2.70
Holding a baby	2	1.80
Drying clothes on a clothes line	2	1.80
Kicking a ball	2	1.80
Going shopping	2	1.80
Feeding chickens	2	1.80
Playing ball	1	0.90
Playing with mom	1	0.90
Bathing a dog	1	0.90
Playing with dad	1	0.90
Ironing clothes	1	0.90
Roasting a chicken	1	0.90
Helping dad with work	1	0.90
Watering plants	1	0.90
Tilling the ground	1	0.90
Talking	1	0.90
<hr/>		
TOTAL NUMBER OF DIFFERENT ACTIONS:	26	

Twenty-four children drew themselves walking (21.62%) to diverse places or to school, and 23 (20.72%) children drew themselves engaged in playing diverse games. The most common specific activity drawn for the self-figures was standing (18.92%).

Table 17 presents the actions of the self, drawn by the moderately acculturated sample. In general, the children in this group represented themselves as very busy, in work-related actions. Forty-five children (41.28%) drew themselves engaged in actions related to school or household chores. Twenty-five children (22.94%) drew themselves engaged in playing or recreational activities. Thirty-one children (28.44%) drew themselves standing, the most common specific activity for the self figure. Other activities drawn only once were carrying something and showering.

Table 18 presents actions of the self drawn by the acculturated sample. The majority of the actions (67%) depicted playing or recreational activities. Most actions (95%) included cooperation of family members, such as singing together, having a family picnic, having a family meeting, eating together, fixing a Christmas tree together, playing games, walking or swimming with the family members.

TABLE 17

KFD SELF ACTIONS DRAWN BY
THE MODERATELY ACCULTURATED CHILDREN (N=109)

Action	Frequency	%
Standing	31	28.44
Doing school work	19	17.43
Playing	15	13.76
Walking to school	8	7.34
Sweeping	7	6.42
Gardening	5	4.59
Reading	4	3.67
Washing dishes	4	3.67
Jumping rope	3	2.75
Playing with an animal	3	2.75
Sitting at school	2	1.83
Listening to radio	1	0.92
Watching TV	1	0.92
Drawing pictures	1	0.92
Riding a bicycle	1	0.92
Cooking	1	0.92
Taking trash out	1	0.92
Talking on the phone	1	0.92
Cleaning	1	0.92
Carrying something	1	0.92
Showering	1	0.92
<hr/>		
TOTAL NUMBER OF DIFFERENT ACTIONS:	21	

TABLE 18

KFD SELF ACTIONS DRAWN BY
THE ACCULTURATED CHILDREN (N=100)

Action	Frequency	%
Watching TV	18	18.00
Eating at a table	10	10.00
In a family meeting	10	10.00
Playing various games	10	10.00
Fixing a Christmas tree	6	6.00
At a picnic	6	6.00
Walking	6	6.00
Riding in a car	5	5.00
Hiking with the family	3	3.00
Sitting at a table	3	3.00
Standing	3	3.00
Taking a family picture	3	3.00
Cleaning house	2	2.00
Listening to a story	2	2.00
Swinging	2	2.00
Painting a picture	1	1.00
Exercising	1	1.00
Singing with the family	1	1.00
Partying	1	1.00
Reading	1	1.00
Praying	1	1.00
Sitting on a chair	1	1.00
Sleeping	1	1.00
Swimming	1	1.00
Walking to school with others	1	1.00
Walking a dog with family	1	1.00
<hr/>		
TOTAL NUMBER OF DIFFERENT ACTIONS: 26		

Table 19 presents the actions of the self-figure drawn by the Caucasian sample. In this sample 91% of the actions performed by the self depicted playing games or engaging in recreational activities. Most of the activities involved other family members. More than 31% of the children drew themselves playing with others in the family. Only one child drew himself involved in performing a house chore (mowing), and one child drew herself washing her hands alone. The Caucasian children and the *acculturated* children drew pictures with similar themes depicting games or recreational activities, with hardly any work actions.

The impression gathered from these drawings was that families who had migrated more recently to the United States felt they had to work hard, probably in order to survive financially and emotionally, by cooperating with each other.

The drawings show that the more acculturated the group the more they participated in recreational activities, such as taking trips with the family members, picnics, going to the park, fishing, camping, going for walks, watching TV, and playing games.

TABLE 19

KFD SELF ACTIONS DRAWN BY
CAUCASIAN CHILDREN (N=114)

Action	Frequency	%
Playing	36	31.58
Standing	13	11.40
Walking	13	11.40
Watching TV	12	10.51
Picnic/park with the family	7	6.14
Swimming	6	5.26
Taking a family picture	3	2.63
Eating	2	1.75
Going fishing	2	1.75
Mowing the lawn	2	1.75
Partying	2	1.75
Reading	2	1.75
Resting	2	1.75
Skiing	2	1.75
Swinging	2	1.75
At the fair	1	0.88
At the movies	1	0.88
Eating candy	1	0.88
Exercising	1	0.88
Family meeting	1	0.88
Going shopping	1	0.88
Listening to a story being read	1	0.88
Sitting on a chair	1	0.88
Washing her hands	1	0.88
<hr/>		
TOTAL NUMBER OF		
DIFFERENT ACTIONS: 24		

Observational Findings

The following information was obtained through observation of the drawing process, interviews, and qualitative content of the drawings. After the instructions were given to make the drawings, the children of Mexican descent tended to ask for repetition of instructions and other questions during the process of drawing. The questions most frequently asked included: Which family should I draw? All my relatives too? What kinds of things can I draw?

The questions were answered with minimum clues. Usually the answer was: Think about things that your family usually does and draw them. Children in the sixth grade tended to cover their drawings until they were done. Children in the lower grades tended to consult with the interviewer asking if they were doing a good job. The least acculturated children in general seemed to be more at ease and more promptly engaged in the task of drawing than either the acculturated or the Caucasian children. In the Mexican sample, two girls and one boy decided to discontinue the task.

The children of Mexican descent referred to the figures in their drawings first by their family roles and then by their names. For example, they would say: "This is my father

Antonio, this is my mother Maria, and this is my oldest brother Jose, this is my uncle Pedro, and this is my grandfather Mario," etc. Many children reported the level of education of their parents as only elementary. The acculturated group reported high school more often. The least acculturated children reported mainly elementary education, and fewer reported high levels of education for their parents. Most children in the unacculturated and moderately acculturated groups proceeded to write the names and actions of their figures before they were asked.

The Caucasian children engaged more promptly and actively in the task of drawing and their questions were minimal. Children from homes with divorced and remarried parents asked more questions in regard to whom to draw, whether a biological or a stepfather or stepmother, or if they should include stepsiblings. A Caucasian girl asked to withdraw from the process before completing her drawing. Most of the Caucasian children referred to the parents' role only, but gave the names of their siblings and their order in the family. Such as: "This is my dad, this is my mom, this is my first sister Karen, and this is my youngest brother Danny." Most of the Caucasian children reported

college-level education for their parents, and a few ignored this information about their parents.

The average length of time to complete the drawing was 20 minutes. Some Caucasian children (25%) took only 10 minutes, while others took up to 30 minutes. The least acculturated children generally worked faster, but some took longer to draw their KFDs due to having larger families.

Testing the Hypotheses

Four hypotheses were tested and the results are discussed one by one. The hypotheses are presented in the null form. Several KFDs did not include the father, and some did not include the mother. Therefore, I decided that analysis of variables concerning the father should be done only with cases that included the father, and likewise for the mother variables. Also, variables relating to both mother and father (e.g., barriers between mother and father) were undertaken using only the cases where both parents were present. The number of cases omitted for these analyses was relatively small.

Null Hypothesis 1

There is no significant difference between the KFDs of boys and girls of Mexican descent with respect to selected KFD variables.

This hypothesis was tested by two analyses: (1) *t*-test for two independent samples and (2) chi-square to account for the possibility that the assumptions for parametric tests may not be tenable.

Table 20 gives the results of the *t*-test on the 47 selected variables. The *N* in column 2 gives the total number of KFDs included in the analysis for that variable.

When the assumption of homogeneity of variance was supported, the Pooled *t*-test was used. If the assumption was not supported the separate samples *t*-test was used. An "s" in the *t* column indicates that this is the separate samples test because the homogeneity of variance was not met.

Of the 47 KFD selected variables 8 were significant. Therefore the null hypothesis was rejected. In each of the variables girls scored significantly higher than the boys.

TABLE 20

t-TEST OF SELECTED KFD VARIABLES FOR BOYS AND GIRLS
FOR HYPOTHESIS 1

Variables	N	Boy Mean	Girl Mean	t	Probability
ACTSELF	317	2.82	2.86	- .742	.459
ACTIMOM	316	2.84	2.92	1.89(s)	.060
ACTIDAD	285	2.78	2.83	- .84	.400
ACTISIB	431	2.75	2.75	- .02	.982
ACTYSEL	431	4.66	4.77	-1.06(s)	.289
ACTYMOM	316	4.71	4.88	-2.01	.045*
ACTYDAD	285	4.63	4.75	-1.10	.271
ACTYSIB	431	1.61	1.03	1.10	.273
ASCSELF	431	3.69	3.78	- .69	.492
ASCMOM	316	4.09	4.41	-2.35(s)	.020*
ASCDAD	285	4.04	4.36	-2.24	.026*
BODSELF	231	6.31	6.35	- .31	.755
BODMOM	316	6.40	6.54	-1.53	.126
BODDAD	285	6.32	6.36	- .48	.634
RSIZESFIG	431	1.51	1.60	-1.63	.103
COMSELF	431	2.42	2.28	.70	.482
COMMOM	316	2.33	2.37	-2.10	.834
COMDAD	285	2.35	2.30	.21	.833
COMSIB	431	2.32	2.11	1.08	.283
COMFAM	431	.42	.25	1.53(s)	.127
NURSELF	431	1.65	1.84	-1.21(s)	.227
NURMOM	316	2.87	3.22	-1.50	.135
NURDAD	285	1.45	1.55	- .70	.484
NUROther	431	2.27	2.25	.07	.942
ORINTSM	315	1.09	1.11	- .54	.593
ORINTSD	285	1.11	1.13	- .45	.651
ORINTMS	316	1.21	1.27	-1.33(s)	.184
ORINTDS	285	1.25	1.26	- .23	.822
ORINTMD	283	1.09	1.16	-1.81(s)	.071
ORINTDM	284	1.13	1.24	-1.25	.211
BARRISM	316	2.28	2.25	1.90	.849
BARRISD	285	2.49	2.36	.81	.416
BARRIMD	284	2.31	2.17	.89	.373
NUMFAM	431	5.83	5.68	.99	.319

Table 20--Continued.

NUMBREL	431	.71	.55	.99	.326
NUMBSIBS	431	2.40	2.42	-.12	.906
FACEXDAD	285	2.36	2.64	-2.98 (s)	.003*
FACEXMOM	316	2.43	2.66	-2.43 (s)	.015*
FACEXSEL	431	2.19	2.67	-5.05 (s)	.001*
FACOMMOM	316	3.38	3.57	-1.81 (s)	.072
FACOMSEL	431	3.17	3.47	-2.56 (s)	.011*
FACOMDAD	285	3.35	3.59	-2.08 (s)	.039*
TEESELF	431	.98	.98	.18	.986
TEEMOM	316	1.01	1.03	-.84	.401
TEEDAD	285	1.00	1.01	-.47	.640
RELSYMB	431	1.01	1.00	.54	.588

Note. s= Separate sample test because the homogeneity of variance was not met.

*Significant at alpha .05.

The following variables were statistically significant:

1. ACTYMOM (Activity type of mother). Girls tended to draw the mother's figures engaged in more active types of activities than the boys.

2. ASCMOM (ascendance of mother). Girls tended to draw the mothers' figures significantly higher in KFDs drawings than the boys.

3. ASCDAD (ascendance of father). Girls tended to draw the father's figures significantly higher in KFD drawings than the boys.

4. FACEXDAD (facial expression of father). Girls drew significantly more friendly expressions for the father figure than the boys.

5. FACEXMOM (facial expression of mother). Girls drew significantly more friendly facial expressions for mothers.

6. FACEXSEL (facial expression of self). Girls drew their faces significantly friendlier for the self than boys.

7. FACECOMS (face completion of self). Girls drew a significantly higher proportion of complete facial features for the self figure than the boys.

8. FACECOMD (face completion of dad). Girls drew a significantly higher proportion of complete facial features for the father figure than the boys.

Chi-square analysis

Table 21 gives the results of the chi-square analysis on 54 variables. The degrees of freedom (*df*) differ because of the varying number of response categories. Also, in many cases, categories had to be combined in order to avoid small expected frequencies (less than 5).

Five out of 54 KFD variables from the acculturation groups 5 were significantly different. Therefore hypothesis 1 is rejected. The contingency tables are shown and interpreted for each significant variable (Tables 22 to 26).

TABLE 21
 CHI-SQUARE ANALYSIS FOR BOYS AND GIRLS
 ON SELECTED KFD VARIABLES FOR HYPOTHESIS 1

Variables	Chi-Square	df	Probability
ACTIMOM	3.021	1	0.0822
ACTSELF	1.519	3	0.6778
ACTDAD	1.378	2	0.5020
ACTOTHR	4.631	3	0.2009
ACTYMOM	1.987	1	0.1587
ACTYSLF	0.472	1	0.4920
ACTYDAD	2.810	2	0.2454
ACTYSIB	0.669	2	0.7159
ACTYTHR	2.241	2	0.3262
ASCMOM	7.457	4	0.1136
ASCSELF	1.770	4	0.7780
ASCDAD	6.322	5	0.2761
BODMOM	9.036	2	0.0109 *
BODSELF	2.368	2	0.3061
BODDAD	3.270	3	0.3518
COMMOM	2.309	3	0.5108
COMSELF	2.122	3	0.5474
COMDAD	3.883	3	0.2744
COMSIB	1.894	4	0.7552
COMGRNDP	0.330	2	0.8478
COMXTFAM	2.019	2	0.3644
BARRISM	2.731	2	0.2552
BARRISD	0.881	4	0.9272
BARRIMD	4.844	3	0.1836
FACEMOM	0.958	2	0.6193
FACESELF	2.163	2	0.3392
FACEDAD	1.164	3	0.7617
FACEXMOM	5.744	2	0.0566
FACEXSLF	28.838	2	<0.0005 *
FACEXDAD	12.430	2	<0.0020 *
NURMOM	2.330	2	0.3119
NURSELF	4.469	2	0.1070
NURDAD	2.271	3	0.5180
NUROTHR	3.530	3	0.3169

Table 21--Continued.

NURGRNDP	0.043	1	0.8365	
TEEMOM	0.000	1	1.0000	
TEESELF	0.000	1	0.9866	
TEEDAD	0.396	1	0.5291	
FACOMMOM	0.958	2	0.6193	
FACCOMSLF	7.426	2	0.0244	*
FACOMDAD	4.077	2	0.1302	
RLSIZFIG	3.152	1	0.0758	
SIBPRES	1.940	1	0.1637	
NUMSIBS	4.156	3	0.2451	
NUMREL	2.226	1	0.1357	
HEADFAM	2.421	3	0.4897	
ORINTDM	0.661	1	0.4162	
ORINTDS	0.094	1	0.7592	
ORINTMD	3.024	1	0.0820	
ORINTMS	2.062	1	0.1510	
ORINTSM	0.358	1	0.5497	
ORINTSD	0.544	1	0.4609	
LIKLIVFM	15.614	1	0.0004	*
RELSYMB	0.000	1	1.0000	

*Significant at .05.

Table 22 presents data for completion of the mother figure's body. Girls showed significantly greater proportions in completing the body of their mother figures in their KFDs than the boys.

The data in Table 23 show that girls drew friendlier faces for their self figures more often than the boys did.

The data in Table 24 show that girls drew a significantly greater proportion of friendlier faces for the dad figure than the boys did.

TABLE 22
CONTINGENCY TABLE FOR BODMOM
FOR ALL BOYS AND GIRLS OF MEXICAN DESCENT

BODMOM	SEX		TOTAL
	BOYS	GIRLS	
5	14 (8.8)	16 (10.3)	30 (9.5)
6	58 (36.5)	33 (21.2)	91 (28.9)
LAST	87 (54.7)	107 (68.6)	194 (61.6)
TOTAL	159(100.0)	156(100.0)	315(100.0)

Note. Parentheses give percentage of figure totals.

TABLE 23
CONTINGENCY TABLE FOR FACEXSELF
FOR ALL BOYS AND GIRLS OF MEXICAN DESCENT

FACEXSELF	SEX		TOTAL
	BOYS	GIRLS	
1	28 (17.5)	8 (5.1)	36 (11.3)
2	56 (35.0)	30 (19.0)	86 (27.0)
LAST	76 (47.5)	120 (75.9)	196 (61.6)
TOTAL	160 (100.0)	158(100.0)	318 (100.0)

Note. Parenthesis figures give percentage of column totals.

TABLE 24

CONTINGENCY TABLE FOR FACEXDAD
FOR ALL BOYS AND GIRLS OF MEXICAN DESCENT

FACEXDAD	SEX				TOTAL	
	BOYS		GIRLS		N	%
	N	%	N	%		
1	33	(20.6)	25	(15.8)	58	(18.2)
2	49	(30.6)	26	(16.5)	75	(23.6)
LAST	78	(48.7)	107	(67.7)	185	(58.2)
TOTAL	160	(100.0)	158	(100.0)	318	(100.0)

Note. Parenthesis figures give percentage of column totals.

The data in Table 25 show that girls drew more complete faces for their own figures than the boys did.

Table 26 shows that the girls drew families which were more attractive to the researcher than did the boys. The girls' pictures seemed to indicate that they enjoyed their family interrelationships more than did the boys.

Both, t-test and the chi-square analyses rendered significant differences between boys and girls on selected KFD variables, therefore null hypothesis 1 is rejected. The t-test analysis and the χ^2 analysis showed equivalent results in four of the significant variables in testing hypothesis one. A few minor differences were found.

TABLE 25

CONTINGENCY TABLE FOR FACCOMSLF
FOR ALL BOYS AND GIRLS OF MEXICAN DESCENT

FACCOMSLF	SEX				TOTAL	
	BOYS		GIRLS		N	%
	N	%	N	%		
1	33	(20.6)	25	(15.8)	58	(18.2)
2	49	(30.6)	26	(16.5)	75	(23.6)
LAST	78	(48.7)	107	(67.7)	185	(58.2)
TOTAL	160	(100.0)	158	(100.0)	318	(100.0)

Note. Parenthesis figures give percentage of column totals.

TABLE 26

CONTINGENCY TABLE FOR LIKLIVFM
FOR ALL BOYS AND GIRLS OF MEXICAN DESCENT

LIKLIVFM	SEX				TOTAL	
	BOYS		GIRLS		N	%
	N	%	N	%		
3	11	(6.9)	7	(4.4)	18	(5.7)
4	68	(42.5)	37	(23.4)	105	(33.0)
LAST	81	(50.6)	114	(72.2)	195	(61.3)
TOTAL	160	(100.0)	158	(100.0)	318	(100.0)

Note. Parenthesis figures give percentage of column totals.

These differences were: The ascendance of the father and mother figures (position of the drawings on the paper), the face expression of the mothers, and the face completion of the fathers were statistically significant in the t-test, while in the χ^2 analysis these variables did not show significant statistical differences. The χ^2 analysis showed statistical significance in the variable body completion of mother, but the t-test analysis did not.

Null Hypothesis 2

There is no linear combination of KFD variables which significantly discriminates between boys and girls of Mexican descent. This hypothesis was tested by discriminant analysis.

This analysis yields more meaningful results than the analysis of individual variables since it takes note of the intercorrelations among the variables. The null hypothesis was tested for the complete Mexican groups and then for those individuals only with both mother and father present. For the complete group the discriminant analysis yielded a discriminant function with chi-square equal to 72.4, with degrees of freedom (*df*) equal to 60, and a probability (*p*) equal to .131. No linear combination for the selected

variables discriminated significantly between boys and girls of Mexican descent, therefore null hypothesis 2 is retained.

For only those KFDs that had the mother and father present, the discriminant analysis function yielded a chi-square equal to 71.3, with degrees of freedom equal to 58, and a probability (p) equal to .113. No linear combination of selected KFD variables discriminated significantly between boys and girls of Mexican descent therefore the null hypothesis is retained for this subgroup also.

Null Hypothesis 3

There are no significant differences among the KFDs of unacculturated, moderately acculturated, and acculturated children of Mexican descent and Caucasian-American children. This hypothesis was tested in two ways: (1) one-way ANOVA and (2) chi-square analysis to meet the possibility that the data do not meet the criteria for parametric tests.

Table 27 shows 28 KFD variables with their mean scores for the three acculturation levels and the comparison group, the value of F for the comparison of groups, and the probability for that F ratio.

For each of the ANOVA the degrees of freedom were 3 and 430. Of the 28 variables in table 27, 25 were statistically significant among the groups. Therefore null hypothesis 3 is rejected.

For each of the 25 significant variables, the Newman Keuls aposteriori test was used to compare all pairs of means. The comparisons for each of the 24 significant variables follow with their interpretation.

1. For the variable ACTSELF (activity level of self), the two less acculturated groups showed a significantly higher level of activities for the self figure when the means were compared with the acculturated and Caucasian group.

2. For the variable ACTMOM (activity level of mother), the less acculturated the children, the higher level of activity they drew for their mother figure. The acculturated group drew significantly lower levels of activity for the mother figure than the other groups.

3. For the variable ACTDAD (activity level of father), the less acculturated children drew the highest level of activity for their father figure. The acculturated group had the lowest level of activity for the father figure. Caucasians and moderately acculturated children drew comparable levels of activity for their father figures.

TABLE 27
ANOVA FOR LEVELS OF ACCULTURATION

VARIABLES	MEAN FOR GROUPS				F	p
	I	II	III	IV*		
ACTSELF	3.00	2.98	2.51	2.71	20.644	<.005*
ACTMOM	3.00	2.99	2.62	2.77	17.611	<.005*
ACTDAD	2.95	2.89	2.59	2.76	8.284	<.005*
ACTOTHER	2.96	2.90	2.36	2.68	16.951	<.005*
ACTYSELF	4.94	4.95	4.21	4.40	15.816	<.005*
ACTYMOM	5.01	5.00	4.32	4.54	18.808	<.005*
ACTYDAD	4.95	4.87	4.24	4.56	10.859	<.005*
ACTYSIBS	4.81	4.86	3.90	4.23	13.236	<.005*
ACTYOTHR	1.25	1.42	.74	.47	5.883	.001*
ASCSELF	3.90	4.06	3.19	3.30	16.767	<.005*
ASCMOM	4.84	4.50	3.32	3.37	54.595	<.005*
ASCDAD	4.98	4.43	3.36	3.47	43.675	<.005*
BARRISM	2.10	2.28	2.41	2.63	2.939	.033*
BARRISD	2.53	2.31	2.45	2.60	0.842	.471
BARRIMD	2.11	2.26	2.22	2.34	0.408	.747
BODYSELF	6.65	6.53	5.75	6.16	15.718	<.005*
BODYMOM	6.86	6.60	5.89	6.19	30.280	<.005*
BODYDAD	6.77	6.41	5.88	6.07	12.942	<.005*
COMSELF	1.70	2.35	3.09	2.98	15.075	<.005*
COMMOM	1.86	2.24	2.98	2.88	9.576	<.005*
COMDAD	1.72	2.24	3.02	2.83	10.742	<.005*
COMSIBS	2.09	1.71	2.93	3.26	18.862	<.005*
COOPSELF	1.83	2.19	2.07	2.49	4.887	.002*
COOPMOM	1.95	2.21	1.90	2.35	3.801	.010*
COOPDAD	1.97	2.21	1.88	2.36	3.397	.018*
NURMOM	3.61	3.45	1.94	2.59	17.716	<.005*
NURDAD	1.51	1.44	1.55	1.97	3.814	.010*
NURSELF	1.98	1.61	1.61	1.80	2.061	.105

Note. *df* = 3, 430.

*Group I = unacculturated; group II = moderately acculturated; group III = acculturated; group IV = Caucasian.

4. For the variable ACTOTHER (activity level of others in the family), the unacculturated and moderately acculturated subjects drew significantly higher levels of activity for figures of other family members besides the father, mother, and the self.

5. For the variable ACTYSELF (activity type of subject), the two less acculturated groups drew similar types of activities for the self figure. These activity types received significantly higher scores than the activity types drawn by the acculturated and the Caucasian groups. Activities drawn by the Caucasian and the acculturated groups were not significantly different.

6. For the variable ACTYMOM (activity type of mother), the two less acculturated groups tended to draw their mothers significantly more physically active than did the acculturated and Caucasian groups.

7. For the variable ACTYDAD (activity type of father), the acculturated children drew significantly less physically active fathers than the Caucasian and the two lower acculturated groups. The unacculturated and moderately acculturated children drew comparable physical activities for their father figures, showing no statistically significant differences.

8. For the variable ACTYSIBS (activity type of siblings), the two less acculturated groups tended to draw their siblings more physically active than the acculturated and Caucasian groups.

9. For the variable ACTYOTHER (activity type of others in the family), the two less acculturated groups tended to draw other members in the family as more active than the acculturated and Caucasian groups. The two less acculturated groups drew similar types of activities for the others in the family. The acculturated group drew similar types of activities to the Caucasian group for others in the family.

10. For the variable ASCSELF (ascendance of subject), the two groups with lower acculturation levels tended to draw their self figure higher in the drawings than the acculturated and Caucasian samples. There was no significant difference between the two lower acculturation groups, and no significant difference between the acculturated and Caucasian group.

11. For the variable ASCMOM (ascendance of mother), the two groups with lower acculturation levels tended to draw the mother figure in the upper part of the paper more than the acculturated and the Caucasian groups.

12. For the variable ASCDAD (ascendance of father), the two less acculturated groups had no significant difference in regard to the position of the father figure in the paper. They tended to draw their father higher than the acculturated and Caucasian groups. There was no significant difference for the acculturated and the Caucasian groups.

13. For the variable BARRISM (barrier between the self and the mother), the unacculturated group drew significantly fewer barriers between the self figure and the mother figure. The Caucasian, the moderately acculturated, and the acculturated groups did not have significant differences in the number of barriers drawn between the self and the mother figures.

14. For the variable BODYSELF (body completion of self), the two less acculturated groups tended to draw more complete figures representing themselves than the acculturated and Caucasian subjects. There were no significant differences between the two less acculturated groups.

15. For the variable BODYMOM (body completion of mother), all the groups were significantly different in drawing the body of their mother figures. The two less acculturated groups tended to draw more complete-bodied figures for their mothers.

16. For the variable BODYDAD (body completion of father), the Caucasian and the acculturated groups drew significantly less complete bodies for their father figures than did the two lower acculturated groups who tended to draw more complete-bodied figures for their fathers. The two lower acculturated groups did not score significantly different in this variable.

17. For the variable COMSELF (communication level of self), the acculturated and the Caucasian groups tended to draw the self figure as more communicative than the less acculturated groups.

18. For the variable COMMOM (communication level of the mother), the Caucasian and the acculturated groups tended to draw their mother figures involved in higher levels of communication. The less acculturated the groups the lower communication levels they drew for their mother figures.

19. For the variable COMDAD (communication level of the father), the Caucasian and acculturated groups tended to draw their fathers in higher communication levels than the two lower acculturated groups. The less acculturated the groups the lower communication levels they drew for their father figures.

20. For the variables COMSIBS (communication level for the siblings), the Caucasian and the acculturated groups tended to draw their siblings in higher communication levels than the less acculturated groups. The less acculturated groups had lower levels of communication for their siblings' figures and they were not significantly different between themselves.

21. For the variable COOPSELF (cooperating self), the unacculturated and the acculturated groups tended to draw less cooperation levels for the self figures. The moderately acculturated and the Caucasian groups had similar levels of cooperation for the self figures, and these were slightly higher levels than the other two groups.

22. For the variable COOPMOM (cooperating mother), the three groups of Mexican-descent children did not show significant differences between the cooperation levels of the mother figures. They were significantly different from the Caucasian group, which showed higher levels of cooperation for the mother figure.

23. For the variable COOPDAD (cooperating father) the acculturated group tended to draw their father figure involved in less cooperating actions than the Caucasian group. There were no other significant differences between the two less acculturated and the Caucasian groups who

tended to draw lower levels of cooperation for their father figures.

24. For the variable NURMOM (nurturing mother) the unacculturated and the moderately acculturated groups tended to draw higher levels of nurturing for their mother drawings than the acculturated and the Caucasian groups.

25. For the variable NURDAD (nurturing father) the Caucasian children tended to draw the father figure engaged in more nurturing activities than the Mexican descent-children.

Tables and Interpretations for Chi-square

Table 28 shows the 29 selected variables and their tests of significance. Out of the 29 KFD selected variables tested by Chi-square, from all the acculturation groups and the Caucasian group, 24 of these were statistically significant. Therefore null hypothesis 3 is rejected. For each one of the significant variables in Table 28 the contingency table is shown and interpreted.

Data in Table 29 show that unacculturated and the moderately acculturated children drew significantly greater proportion of higher activity levels for the mother than the acculturated and Caucasian subjects.

TABLE 28

CHI-SQUARE ANALYSIS FOR ACCULTURATION LEVELS
ON SELECTED KFD VARIABLES FOR HYPOTHESIS 3

Variables	Chi-Square	df	Probability	
ACTSELF	80.828	3	<0.0005	*
ACTMOM	74.078	3	<0.0005	*
ACTDAD	53.241	3	<0.0005	*
ACTOTHER	79.202	6	<0.0005	*
ACTYSELF	47.096	3	<0.0005	*
ACTYMOM	57.796	3	<0.0005	*
ACTYDAD	44.520	3	<0.0005	*
ACTYSIBS	57.678	6	<0.0005	*
ACTYOTHR	10.853	3	0.0125	*
ASCSELF	65.757	12	<0.0005	*
ASCMOM	138.041	12	<0.0005	*
ASCDAD	128.041	12	<0.0005	*
BARRISM	9.558	6	0.1445	
BARRISD	8.633	9	0.4718	
BARRIMD	10.991	6	0.0887	
BODYSELF	73.171	6	<0.0005	*
BODYMOM	103.717	6	<0.0005	*
BODYDAD	78.033	6	<0.0005	*
COMSELF	99.035	9	<0.0005	*
COMMOM	98.510	9	<0.0005	*
COMDAD	114.497	9	<0.0005	*
COMSIBS	146.016	12	<0.0005	*
COOPSELF	9.558	6	0.1445	
COOPMOM	19.079	9	0.0245	*
COOPDAD	161.334	6	<0.0005	*
NURMOM	90.721	6	<0.0005	*
NURDAD	14.605	9	0.1024	
NURSELF	15.069	6	0.0197	*
HEADFAM	100.040	9	<0.0005	*

*Statistically significant at .05.

TABLE 29

CONTINGENCY TABLE FOR ACTMOM
FOR HYPOTHESIS 3

ACTMOM CATEGORY	ACCULTURATION				TOTAL
	1	2	3	4*	
1,2	2(1.8)	3(2.8)	38(39.2)	29(25.4)	16.7
3&>3	108(98.2)	106(97.2)	54(60.8)	85(74.6)	83.3
TOTAL	100.0	100.0	100.0	100.0	100.0

Note. Parentheses give percentage of column total. *1 = unacculturated; 2 = moderately acculturated; 3 = acculturated; 4 = Caucasian.

Data in Table 30 show that children of Mexican descent with lower acculturation levels depicted their mother figures in the KFDs engaged in higher activity types.

Data in Table 31 show that the unacculturated and the moderately acculturated children showed significantly greater proportions in higher ascendance for the mother figure. The information indicates that children with lower acculturation levels tended to draw their mother figures in the KFDs in the upper part of their drawings more often, while acculturated and Caucasian children drew their mother figures in the mid or lower part of their drawings.

TABLE 30

CONTINGENCY TABLE FOR ACTYMOM
FOR HYPOTHESIS 3

ACTYMOM CATEGORY	ACCULTURATION				TOTAL
	1	2	3	4*	
0-4	0 (0.0)	0 (0.0)	26 (26.8)	18 (15.8)	10.2
>4	110 (100.0)	109 (100.0)	71 (73.2)	96 (84.2)	89.8
TOTAL	100.0	100.0	100.0	100.0	100.0

Note. Figures in parentheses denote total percentages.
*1 = unacculturated; 2 = moderately acculturated; 3 = acculturated; 4 = Caucasian.

TABLE 31

CONTINGENCY TABLE FOR ASCMOM
FOR HYPOTHESIS 3

ASCMOM CATEGORY	ACCULTURATION				TOTAL
	1	2	3	4*	
2	2 (1.8)	9 (8.3)	16 (16.5)	25 (21.9)	12.1
3	10 (9.1)	13 (11.9)	38 (39.2)	36 (31.6)	22.6
4	27 (24.5)	27 (24.8)	38 (39.2)	35 (30.7)	29.5
5	36 (32.7)	34 (31.2)	4 (4.1)	16 (14.0)	20.9
>5	35 (31.8)	26 (23.9)	1 (1.0)	2 (1.8)	14.9
TOTAL	100.0	100.0	100.0	100.0	100.0

Note. Figures in parentheses give percentages of column totals.

*1 = unacculturated; 2 = moderately acculturated; 3 = acculturated; 4 = Caucasian.

Data in Table 32 show that the unacculturated and the moderately acculturated children showed significantly greater proportions in the body completion of the mother figure than the acculturated and the Caucasian children in their KFDs. Children of Mexican descent with lower acculturation levels drew their mother figures with complete bodies more than the acculturated and Caucasian children.

Data in Table 33 show that the acculturated and the Caucasian children showed significantly greater proportion of communication levels for the mother figure than unacculturated and moderately acculturated children did in their KFDs. Acculturated children and Caucasian children drew their mother figure engaged in more communicating activities than did the moderately unacculturated and acculturated children.

Data in Table 34 show that unacculturated and moderately acculturated children drew their mothers engaging in higher levels of cooperating activities than the acculturated and Caucasian children did.

Data in Table 35 show that unacculturated and moderately acculturated children drew their mother figures engaging in higher levels of nurturing activities than did the acculturated and Caucasian children.

TABLE 32
CONTINGENCY TABLE FOR BODMOM
FOR HYPOTHESIS 3

BODMOM CATEGORY	ACCULTURATION				TOTAL
	1	2	3	4*	
1-5	1 (0.9)	6 (5.5)	23 (23.7)	12 (10.5)	9.8
6	13 (11.8)	31 (28.4)	48 (49.5)	57 (50.0)	34.7
>7	96 (87.3)	72 (66.1)	26 (26.8)	45 (39.5)	55.6
TOTAL	100.0	100.0	100.0	100.0	100.0

Note. Figures in parentheses give percentages of column totals.

*1 = unacculturated; 2 = moderately acculturated; 3 = acculturated; 4 = Caucasian.

TABLE 33
CONTINGENCY TABLE FOR COMMOM
FOR HYPOTHESIS 3

COMMOM CATEGORY	ACCULTURATION				TOTAL
	1	2	3	4*	
1	84 (76.4)	73 (67.0)	24 (24.7)	48 (42.1)	229 (53.3)
2	3 (2.7)	2 (1.8)	25 (25.8)	15 (13.2)	45 (10.5)
4	5 (4.5)	4 (3.7)	20 (20.6)	9 (7.9)	38 (8.9)
>4	18 (16.4)	30 (27.5)	28 (28.9)	42 (36.9)	118 (27.4)
TOTAL	110 (100.0)	109 (100.0)	97 (100.0)	114 (100.0)	430 (100.0)

Note. Figures in parentheses denote percentage of column totals.

*1 = unacculturated; 2 = moderately acculturated; 3 = acculturated; 4 = Caucasian.

TABLE 34
CONTINGENCY TABLE FOR COOPMOM
FOR HYPOTHESIS 3

COOPMOM CATEGORY	ACCULTURATION				TOTAL
	1	2	3	4*	
1	25(22.7)	17(15.6)	62(63.9)	53(46.5)	36.5
2	74(67.3)	72(66.1)	6(6.2)	13(11.4)	38.4
>2	11(10.0)	20(18.3)	29(29.9)	48(42.1)	25.1
TOTAL	100.0	100.0	100.0	100.0	100.0

*1 = unacculturated; 2 = moderately acculturated; 3 = acculturated; 4 = Caucasian.

TABLE 35
CONTINGENCY TABLE FOR NURMOM
FOR HYPOTHESIS 3

NURMOM CATEGORY	ACCULTURATION				TOTAL
	1	2	3	4*	
1	39(35.5)	41(37.6)	69(71.1)	56(49.1)	47.7
4	4(3.6)	3(2.8)	14(14.4)	28(24.6)	11.4
LAST	67(60.9)	65(59.6)	14(14.4)	28(26.4)	40.9
TOTALS	100.0	100.0	100.0	100.0	100.0

Note. Figures in parentheses indicate percentage of column totals.

*1 = unacculturated; 2 = moderately acculturated; 3 = acculturated; 4 = Caucasian.

Data in Table 36 show that the unacculturated and moderately acculturated children reported more often that the father is the head of the family than the acculturated and the Caucasian children. The acculturated and Caucasian children reported more often than the two lower acculturated groups that both father and mother were the heads of the family.

In Table 37, the data show that the unacculturated and the moderately acculturated children drew significantly greater proportions of their father figures engaged in the higher activity levels than the acculturated children and the Caucasian children.

The data in Table 38 show that the unacculturated and the moderately acculturated children drew significantly greater proportions of their father figures engaging in more physically demanding activity types than did the acculturated children and the Caucasian children.

The data in Table 39 show that the unacculturated and the moderately acculturated children drew their father figures in the upper middle part of the drawing while the acculturated and the Caucasian children drew their father figures more often in the bottom middle part of their drawings.

TABLE 36
CONTINGENCY TABLE FOR HEADFAM
FOR HYPOTHESIS 3

HEADFAM CATEGORY	Acculturation				TOTAL
	1	2	3	4*	
1	88(80.7)	89(81.7)	54(55.7)	65(57.0)	69.0
2	10(9.2)	7(6.4)	6(6.2)	10(8.8)	7.7
3	2(1.8)	1(0.9)	37(38.1)	39(34.2)	18.4
4	9(8.3)	12(11.0)	0(0.0)	0(0.0)	5.9
TOTALS	93(100)	98(100)	95(100)	105(100)	100.0

Note. Figures in parentheses indicate percentage of column totals.

*1 = unacculturated; 2 = moderately acculturated; 3 = acculturated; 4 = Caucasian.

TABLE 37
CONTINGENCY TABLE FOR ACTDAD
FOR HYPOTHESIS 3

ACTDAD CATEGORY	CATEGORY				TOTAL %
	I	II	III	IV*	
1,2	6(6.1)	7(7.1)	41(43.2)	27(25.7)	20.7
3&>3	87(93.9)	91(92.9)	54(56.8)	78(74.3)	79.3
TOTAL	93(100)	98(100)	95(100)	105(100)	100.0

Note. Parenthesis figures give percentage of column totals.

*I = unacculturated; II = moderately acculturated;
III = acculturated; IV = Caucasian.

TABLE 38
CONTINGENCY TABLE FOR ACTYDAD
FOR HYPOTHESIS 3

ACTYDAD CATEGORY	ACCULTURATION				TOTAL %
	I	II	III	IV*	
0-4	2 (2.2)	4 (4.1)	30 (31.6)	19 (18.1)	14.1
>4	91 (97.8)	94 (95.9)	65 (68.4)	86 (81.9)	85.9
TOTAL	93 (100)	98 (100)	95 (100)	105 (100)	100.0

Note. Parenthesis figures give percentage of column totals.
*I = unacculturated; II = moderately acculturated; III =
acculturated; IV = Caucasian.

TABLE 39
CONTINGENCY TABLE FOR ASCDAD
FOR HYPOTHESIS 3

ACSDAD CATEGORY	ACCULTURATION				TOTAL %
	I	II	III	IV*	
1-3	8 (8.6)	26 (26.6)	51 (53.7)	54 (51.5)	35.5
>3	85 (91.4)	72 (73.4)	44 (46.3)	51 (48.5)	64.5
TOTAL	93 (100)	98 (100)	95 (100)	105 (100)	100.0

Note. Parenthesis figures give percentage of column totals.
*I = unacculturated; II = moderately acculturated; III =
acculturated; IV = Caucasian.

In Table 40 the data show that the acculturated children tended to draw significantly less complete body structures for the father figure than the unacculturated, moderately acculturated, or the Caucasian children.

The data in Table 41 show that the unacculturated and the moderately acculturated children drew lower levels of communication for their father figures.

TABLE 40
CONTINGENCY TABLE FOR BODYDAD
FOR HYPOTHESIS 3

BODYDAD CATEGORY	ACCULTURATION				TOTAL %
	I	II	III	IV*	
1-5	2 (2.2)	8 (8.1)	22 (23.2)	15 (14.3)	12.1
>5	91 (77.8)	90 (91.9)	73 (76.8)	90 (85.7)	87.9
TOTAL	93 (100)	98 (100)	95 (100)	105 (100)	100.0

Note. Parenthesis figures give percentage of column totals.
*I = unacculturated; II = moderately acculturated; III = acculturated; IV = Caucasian.

TABLE 41
CONTINGENCY TABLE FOR COMDAD
FOR HYPOTHESIS 3

COMDAD	ACCULTURATION				TOTAL %
	I	II	III	IV*	
1-3	76(81.7)	68(69.4)	50(52.6)	59(56.2)	64.7
>3	17(18.3)	30(30.6)	45(47.4)	46(43.8)	35.3
TOTAL	93(100)	98(100)	95(100)	105(100)	100.0

Note. Parenthesis figures give percentage of column totals.
*I = unacculturated; II = moderately acculturated; III = acculturated; IV = Caucasian.

The data in Table 42 indicate that unacculturated and moderately acculturated children tended to draw pictures of their fathers cooperating more with other members of the family than children from the Caucasian group or from the acculturated group. The children in the acculturated group drew the lowest level of cooperation for their father figures.

The data in Table 43 indicate the unacculturated and moderately acculturated children drew themselves more physically active than children in the other two groups.

TABLE 42
CONTINGENCY TABLE FOR COOPDAD
FOR HYPOTHESIS 3

COOPDAD CATEGORY	ACCULTURATION				TOTAL %
	I	II	III	IV*	
0-1	25(26.9)	18(18.3)	62(65.3)	50(47.7)	39.7
>1	68(73.1)	80(81.6)	33(34.7)	55(52.3)	60.3
TOTAL	93(100)	98(100)	95(100)	105(100)	100.0

Note. Parenthesis figures give percentage of column totals.
*I = unacculturated; II = moderately acculturated; III = acculturated; IV = Caucasian.

TABLE 43
CONTINGENCY TABLE FOR ACTSELF
FOR HYPOTHESIS 3

ACTSELF CATEGORY	ACCULTURATION				TOTAL %
	I	II	III	IV*	
0-2	5(4.5)	3(2.8)	45(45.0)	29(25.4)	18.9
>2	105(95.5)	106(97.2)	55(55.0)	85(74.6)	81.1
TOTAL	110(100)	109(100)	100(100)	114(100)	100.0

Note. Parenthesis figures give percentage of column totals.
*I = unacculturated; II = moderately acculturated; III = acculturated; IV = Caucasian.

The data in Table 44 show that the unacculturated and the moderately acculturated children drew their self figures engaging in higher levels of activity types than the acculturated and the Caucasian children. The acculturated children tended to draw themselves engaging in the lower levels of activity types.

In Table 45 the data indicate that the unacculturated and the moderately acculturated children tended to draw their self figure more often in the upper half section of their KFDs, and the acculturated and Caucasian children's drawings showed more often the self figure in the lower half of their KFDs.

TABLE 44
CONTINGENCY TABLE FOR ACTYSLF
FOR HYPOTHESIS 3

ACTYSLF CATEGORY	ACCULTURATION				TOTAL %
	I	II	III	IV*	
0-4	4 (3.6)	2 (1.8)	29 (29.0)	23 (20.2)	13.4
>4	106 (96.4)	107 (98.2)	71 (71.0)	91 (79.8)	86.6
TOTAL	110 (100)	109 (100)	100 (100)	114 (100)	100.0

Note. Parenthesis figures give percentage of column totals.
*I = unacculturated; II = moderately acculturated; III = acculturated; IV = Caucasian.

TABLE 45
CONTINGENCY TABLE FOR ASCSELF
FOR HYPOTHESIS 3

ASCSELF CATEGORY	ACCULTURATION				TOTAL %
	I	II	III	IV*	
1-3	46(41.8)	40(36.7)	61(61.0)	71(62.3)	50.3
>3	64(58.2)	69(63.3)	39(39.0)	43(37.7)	49.7
TOTAL	110(100)	109(100)	100(100)	114(100)	100.0

Note. Parenthesis figures give percentage of column totals.
*I = unacculturated; II = moderately acculturated; III = acculturated; IV = Caucasian.

In Table 46 the data show that the unacculturated, the moderately acculturated, and the Caucasian children drew a higher percentage of complete body structures for the self figures than did the acculturated children.

The data in Table 47 show that unacculturated and moderately acculturated children drew themselves as being less communicative than the acculturated and the Caucasian children did.

The data in Table 48 show that the moderately acculturated and the acculturated children tended to draw themselves being more nurturing to others than the unacculturated, or the Caucasian children.

The data in Table 49 show that the unacculturated and the moderately acculturated children drew other members of their family engaging in higher levels of activity than the acculturated and the Caucasian children.

The data in Table 50 show that Caucasian children tended to draw other family members in their KFD as being engaged in lower activity types than the children of Mexican descent in the three different levels acculturation.

The data in Table 51 show that acculturated and the Caucasian children tended to draw their sibling figures as being engaged in more lower activity types than the unacculturated, or moderately acculturated.

TABLE 46
CONTINGENCY TABLE FOR BODYSELF
FOR HYPOTHESIS 3

BODYSELF CATEGORY	ACCULTURATION				TOTAL %
	I	II	III	IV*	
0-5	4 (3.6)	4 (3.7)	25 (25.0)	12 (10.5)	10.4
>5	106 (96.4)	105 (96.3)	75 (75.0)	102 (89.5)	89.6
TOTAL	110 (100)	109 (100)	100 (100)	114 (100)	100.0

Note. Parenthesis figures give percentage of column total.
*I = unacculturated; II = moderately acculturated; III = acculturated; IV = Caucasian.

TABLE 47

CONTINGENCY TABLE FOR COMSELF
FOR HYPOTHESIS 3

COMSELF CATEGORY	ACCULTURATION				TOTAL %
	I	II	III	IV*	
0-3	92 (83.7)	72 (66.0)	47 (47.0)	58 (50.9)	62.1
>3	18 (16.3)	37 (34.0)	53 (53.0)	56 (49.1)	37.9
TOTAL	110 (100)	109 (100)	100 (100)	114 (100)	100.0

Note. Parenthesis figures give percentage of column totals.
*I = unacculturated; II = moderately acculturated; III = acculturated; IV = Caucasian.

TABLE 48

CONTINGENCY TABLE FOR NURSELF
FOR HYPOTHESIS 3

NURSELF CATEGORY	ACCULTURATION				TOTAL %
	I	II	III	IV*	
0-2	72 (65.5)	83 (76.1)	73 (73.0)	70 (61.4)	68.8
>2	38 (34.5)	26 (23.9)	27 (27.0)	44 (38.6)	31.2
TOTAL	110 (100)	109 (100)	100 (100)	114 (100)	100.0

Note. Parenthesis figures give percentage of column totals.
*I = unacculturated; II = moderately acculturated; III = acculturated; IV = Caucasian.

TABLE 49
CONTINGENCY TABLE FOR ACTOTHER
FOR HYPOTHESIS 3

ACTOTHER CATEGORY	ACCULTURATION				TOTAL %
	I	II	III	IV*	
0-2	5 (4.5)	9 (8.2)	49 (49.0)	28 (24.5)	21.0
>2	105 (95.5)	100 (91.8)	51 (51.0)	86 (75.5)	79.0
TOTAL	110 (100)	109 (100)	100 (100)	114 (100)	100.0

Note. Parenthesis figures give percentage of column totals.
*I = unacculturated; II = moderately acculturated; III = acculturated; IV = Caucasian.

Table 52 presents data showing that unacculturated and moderately acculturated children drew their siblings as less communicative than the acculturate and Caucasian children.

The data on the communication level and nurturing level of grandparents was not included in the analysis as it was intended at the onset of the study because the drawings that contained the presence of grand parents was minimal in all four groups. The analysis and interpretation of such data would not have been statistically valid.

The ANOVA and chi-square analyses show statistically significant differences in the KFDs of acculturated, moderately acculturated, and acculturated children of

Mexican descent, and Caucasian children, therefore null hypothesis 3 is rejected. The ANOVA data show statistical significance in 24 out of 29 selected KFD variables, and the Chi-square data show statistical significance in 26 variables. The data for both ANOVA and Chi-square showed close similarity, except the ANOVA data showed statistical significance for the barrier between self and mother while the Chi-square did. The Chi-square showed significance for the nurturing level of self, but ANOVA did not.

TABLE 50

CONTINGENCY TABLE FOR ACTYTHER
FOR HYPOTHESIS 3

ACTYTHER CATEGORY	ACCULTURATION				TOTAL %
	I	II	III	IV*	
0-2	82 (74.5)	78 (71.6)	80 (80.0)	101 (88.6)	78.8
>2	28 (25.5)	31 (28.4)	20 (20.0)	13 (11.4)	21.2
TOTAL	110 (100)	109 (100)	100 (100)	114 (100)	100.0

Note. Parenthesis figures give percentage of column totals.
*I = unacculturated; II = moderately acculturated; III = acculturated; IV = Caucasian.

TABLE 51

CONTINGENCY TABLE FOR ACTYSIBS
FOR HYPOTHESIS 3

ACTYSIBS CATEGORY	ACCULTURATION				TOTAL %
	I	II	III	IV*	
0-3	4 (3.6)	3 (2.8)	9 (9.0)	10 (8.8)	6.0
>3	106 (96.4)	106 (97.2)	91 (91.0)	104 (91.2)	94.0
TOTAL	110 (100)	109 (100)	100 (100)	114 (100)	100.0

Note. Parenthesis figures give percentage of column total.
*I = unacculturated; II = moderately acculturated; III = acculturated; IV = Caucasian.

TABLE 52

CONTINGENCY TABLE FOR COMSIBS
FOR HYPOTHESIS 3

COMSIBS CATEGORY	ACCULTURATION				TOTAL %
	I	II	III	IV*	
0-2	80 (72.7)	89 (81.7)	52 (52.0)	49 (43.0)	62.3
>2	30 (27.3)	20 (18.3)	48 (48.0)	65 (57.0)	37.7
TOTAL	110 (100)	109 (100)	100 (100)	114 (100)	100.0

Note. Parenthesis figures give percentage of column totals.
*I = unacculturated; II = moderately acculturated; III = acculturated; IV = Caucasian.

Null Hypothesis 4

There is no linear combination of selected KFD variables that significantly discriminates among unacculturated, moderately acculturated, and acculturated children of Mexican descent, and Caucasian-American children.

This hypothesis was tested by discriminant analysis at an alpha level of .05. Only the cases where both parents were present were included in this analysis as the absence of a parent would radically affect the means of many variables. Three discriminant functions were identified. The test of significance of Function 1 led to $\chi^2 = 622.7$, $df = 186$, and $p = <.0005$. The numbers of the weights are ranked. Table 53 shows the standardized weight for Function 1. A suggested criterion for initially selecting variables for inclusion in the interpretation is to start with the highest weight on that function and to include those variables whose weights are at least 50% of the maximum weight.

For Function 1, only 3 weights were ranked, namely COMSIB (Communicating siblings), Total Family Members, and COOPDAD (Cooperating dad). The mean for the unacculturated group was 1.44, for the moderately acculturated group was

1.52, for the acculturated groups was -1.73, and for the Caucasian group was -1.14.

The analysis for Function 1 indicated that a randomly selected individual who drew a KFD showing less communicative siblings, higher numbers of members in the family, and a more cooperative father is more likely to be in the unacculturated or in the moderately acculturated groups than in the acculturated or the Caucasian groups.

TABLE 53

DISCRIMINANT FUNCTION 1 WEIGHTS
HYPOTHESIS 4 - ACCULTURATION LEVELS

Variables	Weight	Rank
Communicating siblings	-.761	1
Total # in family members	.533	2
Cooperating dad	.402	3
Face expression of mother	-.317	
Nurturing done by father	-.314	
Cooperation of other in the family	.303	
Religious Activities	-.301	
Nurturing done by mother	.264	
Number of siblings present	-.263	
Ascendance of father	.247	
Ascendance of mother	.214	
Body completion of mother	.206	
Face completion of mother	.204	
Relative arm length of subject	-.200	
Cooperating mother	-.183	
Communication level of mother	-.177	
Gender of subject	-.176	
Orientation between mother and subject	-.171	
Nurturing done by other in the family	.162	
Orientation between mother and father	.137	

Function 2 yielded a $\chi^2=216.3$, $df = 122$, and $p = <.0005$. For Function 2 there were 12 variables weighted at least half the size of the maximum weight. Means for Function 2 were .237 for the unacculturated group, -.03 for the moderately acculturated group, .912 for the acculturated group, and -.991 for the Caucasian group.

Table 54 shows the standardized weights for function 2.

TABLE 54
DISCRIMINANT FUNCTION 2 WEIGHTS
ACCULTURATION LEVELS FOR HYPOTHESIS 4

Variables	Weights	Ranks
Religious activities	.578	1
Cooperating dad	-.485	2
Activity type of father	-.457	3
Mother facing	-.442	4
Self facing	.386	5
Activity level of others in family	-.383	6
Relative arm length of subject	-.351	7
Face completion of self	-.321	8
Barrier type between self and mother	-.307	9
Communication level of father	.307	10
Ascendance of mother	.292	11
Activity type of sibling	.289	12
Face expression of father	.258	
Total number in family members	-.257	
Relative size of figures	.256	
Relative arm length of mother	.242	
Number of extended family present	.227	
Activity type of other	.223	
Cooperating self	.222	

The analysis for Function 2 indicated that a randomly selected individual whose picture shows more religious activity, a less cooperating dad, lower levels of activity type for the father, lower levels for mother facing, higher levels for self facing, shorter relative arm length of the subject, lower levels of activity for others in the family, more complete faces for the self, fewer barriers between the self and the mother, more communicative fathers, more mothers drawn in the upper half of the paper, and higher activity levels of siblings is more likely to be in the fully acculturated group than in the other groups. This second function is less important than Function 1.

Function 3 yielded a $\chi^2 = 77.3$, $df = 60$, and $p = .066$, nonsignificant at $\alpha = .05$. Functions 1 and 2 were statistically significant, therefore null hypothesis 4 is rejected.

Summary

This chapter presented the demographic data of the sample, the KFD basic data, descriptive and qualitative findings, and testing of the hypotheses. A summary of the findings is presented in chapter 5 and recommendations for further research.

CHAPTER V

SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary, discussion of the findings, conclusions of the study, and recommendations for further research. The summary briefly describes the statement of the problem, the review of literature, the purpose of the study, the methodology, and the findings. Conclusions and recommendations are given based on the findings of the study.

Summary

Statement of the Problem

A better understanding of other cultures will help to avoid misunderstandings and foster appreciation for people in a country formed by diverse cultural groups. In the United States of America, over the past few years, several volumes have been published that focus on cultural issues in the treatment of ethnic minority children and youth (Gibbs et al., 1990; Ho, 1993; Vargas & Koss-Chioino, 1992).

This growth in clinical and research activity is crucial in the light of the rapidly expanding population of Latino/Hispanics, ranking as the second largest ethnic minority group in the United States (Russel & Satterwhite, 1978; U.S. Bureau of the Census, 1998). From March 1990 to March 1998, the number of Hispanics rose by 48% from 20.8 million to 30.8 million, while the total U.S. population increased by only 9.3% (U.S. Bureau of the Census, 1998).

Latino/Hispanic young people and their families present a challenge to clinicians and to treatment settings, as well as to researchers in this new century. Information on Hispanic children and their families is limited even though Hispanics are one of the main minority groups in America and increasingly more Hispanics are migrating here. More studies need to be conducted to gain a better understanding of this large segment of the population in the United States.

With the present needs in the Latino/Hispanic population to examine ways of understanding its culture and possible ways of meeting its needs, the projective family drawings may offer insights on how Latino/Hispanic children perceive their families and how their family interactions differ from those of the majority culture. Although the

Kinetic Family Drawing technique appears to be a viable instrument for assessing children's perspectives of self and family relationships, most studies of KFDs have focused on the Caucasian population of America, and only a few studies have focused on other cultures (Burns, 1982; Cabacungan, 1985; Chartouni, 1992; Cho, 1987; Chuah, 1992; Gregory, 1992; Shaw, 1989).

A number of studies have been done with Hispanic samples (Cervantes & Arroyo, 1994; Colon, 1987; Constantino et al., 1991; Osorio, 1996). Some of these studies have focused on validating diverse assessment instruments (Geisenger, 1992), and others have focused on validating appropriate interventions for the Hispanic population (Fabrega, 1995). Other studies have focused on issues of acculturative stress and personal adjustment among Hispanics (Gil et al., 1994; Nájera, 1990).

No study had been done with children of Mexican descent, comparing this group with Caucasian-American children, to ascertain if their drawings reflect more of the culture of the Caucasian majority as they go through the process of becoming more acculturated to the mainstream culture.

Overview of Related Literature

The data available on Hispanics in the United States points out that although the overall minority population rose 32% in the 1990s, the Hispanic population increased by 48%. The United States of America has the fifth largest Hispanic/Latino population in the world (U.S. Bureau of the Census, 1998).

The Mexican-descent population is one of the largest ethnic minority groups in the United States, currently being underserved by the mental health profession. Their needs are as many, or more than the Caucasian-Americans. It is certainly plausible that conflict between their cultural lifestyle and values and those of the majority society could be distressing. Padilla and Ruiz (1973), for instance, indicated that Mexican-Americans and other Latinos have more mental health problems given the high-stress indicators (poverty, prejudice, and so forth) in their lives.

A growing body of empirical research has contributed some information on the Mexican-American's mental health status and perception and use of psychotherapeutic services (Acosta & Sheehan, 1978; Acosta et al., 1982; Franco & Levine, 1980; Roberts, 1980, 1981; Rueschenberg & Buriel,

1989, 1995), but it seems that more research is needed to come to a clearer understanding of their intricate cultural values and acculturation process (Rueschenberg & Buriel 1995). The extensive social, economic, and ethnic diversity among Spanish-origin groups in the United States and the relative shortage of empirical studies on some of these groups suggest the need for care in generalizing about recent trends in family and household structures among Hispanics as a single population.

Although the Hispanic/Latino population, in general, and its acculturation process have been studied (Padilla, 1992, 1994) little empirical research has been done on the psychological effects on Mexican-Americans of acculturation to Anglo-American lifestyles (Acosta, 1984, Alva, 1985; Keefe, 1980; Rueschenberg & Buriel, 1989, 1995). Likewise, although few clear and definite empirical findings have shown the negative effects of the acculturative stress, these studies suggest that conflict between one's culture and values and those of the majority society can be distressing.

Other studies have suggested that conditions of cultural conflict can lead to psychological distress in individuals of ethnic minorities (Dworking, 1965; Nájera, 1990; Sommers, 1964).

The literature strongly suggests that there is a direct correlation between a Hispanic/Latino child's level of acculturation and his or her psychological behavioral adjustment. It also suggests that strong identification with the Anglo-American culture was accompanied by more psychological distress than maintenance of a bicultural identity (Buriel et al., 1982; Knight, 1978).

Some models and scales to measure the individual's level of acculturation have been developed. These should prove to be of assistance both in making clinical decisions about the relevance of cultural or noncultural treatment modalities and also in the development of further information on the psychological impact of acculturation in the lives of Mexican-descent people (Cuellar et al., 1980; Padilla, 1980).

The potential severity of the problem of acculturation for Mexican children as they move into the Caucasian-American lifestyle is not currently known. Instruments that may aid in achieving deeper understanding in the process of acculturation of children of Mexican origin, and in understanding the needs of these children, as well as the development of programs to meet those needs, are warranted.

The Kinetic Family Drawing, evolved from Hulse's Draw-A-Family, was developed by Burns and Kaufman (1970) to assess children's perceptions of self and family. Koppitz (1983) stressed the importance of combining drawings with other information. Studies on the KFD have shown high interrater reliability, but low test-retest reliability (Cummings, 1980; Levenger, 1975; Mostkoff & Lazarus, 1983). Children's drawings seem to reflect the attitude of the child at the moment of the drawing and reflect changes over time.

Although the Kinetic Family Drawing technique appears to be a viable instrument for assessing children's perspectives of self and family relationships, most studies of KFDs have focused on the Caucasian population of America. The number of studies using the KFDs is increasing. Some of these have focused on other cultures and rendered support to its cross-cultural usage (Burns, 1982; Cabacungan, 1985; Chartouni, 1992; Cho, 1987; Chuah, 1992; Gregory, 1992; Osorio, 1996; Shaw, 1989).

In the last 10 years there has been a considerable amount of discussion on the effects of migration on children (Díaz & Santiago, 1998). In a timely fashion a number of studies of KFDs of children of various American subcultures

have been produced in dissertations written at Andrews University during the last decade. These studies thus far have included Euro-Caucasian, Blacks, Hispanics, Lebanese, Chinese, Native Americans, and three religious groups (Catholics, Lutherans, and Seventh-day Adventists) (Handler & Habenicht, 1992). A number of studies have been done with Hispanic samples (Cervantes & Arroyo, 1994; Colon, 1987; Constantino et al., 1991; Osorio, 1996).

Chuah (1992) recommended that further studies be conducted to better understand the experiences of the first and second generation of minority groups in the United States. Osorio (1996) utilized the KFD to study family structures and substance abuse in Hispanic families, but no studies have focused on the KFD technique as an instrument to study the acculturation process of Mexican-descent children.

Purpose of the Study

The purpose of this study was threefold: (1) To describe the perceptions of self and family relationships of Mexican-descent children in Grades 3 to 6 as revealed in their Kinetic Family Drawings; (2) to compare the KFDs of Mexican-descent children with those of Caucasian-American children; and (3) to discover if levels of acculturation of

Mexican descent children and their families can be ascertained in the KFD.

Methodology

This was a comparative and descriptive study which sought to discover perceptions of self and family relationships of children of Mexican descent in their KFDs as they go through a process of acculturation. It also included a comparison between Mexican-descent children and Caucasian-American children in regard to their self-perception and family relationships. Part of the study was qualitative in nature in order to provide information which quantitative analysis could not provide.

Sampling

The subjects for this study were 434 children, 320 of Mexican descent, and 114 Caucasian-Americans, in Grades 3 through 6 from the North and South Central area of Texas. The communities chosen for this study included rural, semi-rural, small cities, and large cities. The schools that participated in the study served a population that offered an adequate representation of Mexican-American and Caucasian-American children. The participating schools consisted of three small private schools, three-medium size

private school, and nine public schools, which consented to participate voluntarily.

Instrumentation

The KFD is a projective assessment tool that has many characteristics that enable it to be used for research in understanding other cultures.

1. First, there is no language barrier.

2. Only minimal verbalization is required. It is useful in cultures where people are not encouraged to express their feelings and/or are not accustomed to doing so.

3. The KFD is especially useful with children since most children enjoy drawing, and its drawing requirements do not require much skill.

5. It is especially useful when family relationships are sensitive issues.

The scoring system used for this system was primarily developed by Burns and Kaufman (1970) and modified by Habenicht (Chandler & Habenicht, 1991).

Independent variables included: race, sex, age, and acculturation level (including generation, length of residence, language spoken at home, language spoken with friends, and language of preference).

Certain dependent variables were selected to be included in this study, because they seemed to hold some promise for accurately reflecting particular characteristics of families of Mexican descent, and particular characteristics of Caucasian-American families.

The following 19 variables regarding actions were used:

1. ACTSELF: Activity level of self
2. ACTIMOM: Activity level of mother
3. ACTIDAD: Activity level of father
4. ACTOTHR: Activity level of others in family
5. ACTYSELF: Activity type of self
6. ACTYMOM: Activity type of mother
7. ACTYDAD: Activity type of father
8. ACTOTHER: Activity type of others in family
9. COMSELF: Communicating self
10. COMMOM: Communicating mother
11. COMDAD: Communicating father
12. COMSIB: Communicating siblings
13. COMFAM: Communicating with extended family
14. NURSELF: Nurturing self
16. NURMOM: Nurturing mother
17. NURDAD: Nurturing father

18. NUROTHER: Nurturing other members in family

19. RESYMB: Religious symbols or activities.

The following 18 variables regarding figure characteristics were used:

1. BODSELF: Body completion of self
2. BODMOM: Body completion of mother
3. BODDAD: Body completion of father
4. TEESELF: Teeth in self
5. TEEMOM: Teeth in mother
6. TEEDAD: Teeth in father
7. FACEXSEL: Face expression of self
8. FACEXMOM: Face expression of mother
9. FACEXDAD: Face expression of father
10. FACOMSEL: Face completion of self
11. FACOMMOM: Face completion of mother
12. FACOMDAD: Face completion of dad
13. RSIZESELF: Relative size of self
13. MOMPRES: Mother present
14. DADPRES: Father present
15. GRAMPRE: Grandparents present
16. NUMBSIB: Number of siblings present
17. NUMBREL: Number of other live-in relatives
18. NUMBFAM: Total number of family members.

The following 12 variables regarding position, distance, orientation, and barrier were used:

1. ASCSELF: Ascendent self
2. ASCMOM: Ascendent mother
3. ASCDAD: Ascendent father
4. ORINTDM: Orientation between dad and mom
5. ORINTDS: Orientation between dad and self
6. ORINTMS: Orientation between mom and self
7. ORINTMD: Orientation between mom and dad
8. ORINTSD: Orientation between self and dad
9. ORINTSM: Orientation between self and mom
10. BARRISM: Barrier type between self and mom
11. BARRISD: Barrier type between self and dad
12. BARRIMD: Barrier type between mom and dad

A subjective variable was included in the scoring:

LKLIVFAM: General impression of the family from the drawings.

The scoring for the ascendent self, mother, and father may provide valuable clinical information for an individual child, but the group means may not give useful information. Therefore, those variables are presented in percentages according to the position of the figure on the paper.

Extended family ties tend to be characteristic of the families of Mexican descent. Padilla (1979) indicated

that their family connections and the frequency of contact among members tend to be greater than those of Caucasian-Americans. The extended family often includes both the immediate nuclear family and relatives, life-long friends, and kin created through religious customs (Acosta, 1984). Therefore, the following variables were included in this study: activity level of siblings, communicating siblings, grandparents present, grandparents' interactions, other family members present, other family members' interactions, religious symbols/activities present. Demographic information of grandparents and/or other relatives is also included.

Measures of Acculturation

The different levels of individual acculturation were measured according to the following dimensions of acculturation used by Olmedo (1980) and Padilla (1980): language preference and proficiency, generational status, and recency of migration. Three levels of acculturation were considered: unacculturated--all family members born in Mexico, parents monolingual Spanish-speaking, having immigrated to the United States within the past 10 years; moderately acculturated--parents born in Mexico and having resided in the United States at least 10 years, children

born in the United States, parents monolingual Spanish-speaking or Spanish-dominant and children with English-speaking ability; and acculturated--both parents and children born in the United States, bilingual or English-speaking preference for both parents and children.

Findings of the Study

The following section presents a summary of the findings with discussion regarding the results of the hypothesis testing of the drawing data.

Analysis of the Hypotheses

Four hypotheses relating to differences between how children of Mexican descent draw their KFDs when compared to Caucasian-American children, between girls and boys, and between unacculturated, moderately acculturated, and acculturated children of Mexican descent were studied. The hypotheses were tested by either t-tests, one-way analysis of variance, chi-squares, or by discriminant analysis. All hypotheses were tested at the alpha level of .05.

Hypothesis 1

There is no significant difference between the KFDs of boys and girls of Mexican descent with respect to selected KFD variables.

Six out of 48 variables were significantly different, therefore null hypothesis 1 was rejected.

The results showed that girls tended to draw the mother's figure significantly higher, and significantly greater proportions completed the body of their mother figure in their KFD drawings than the boys. Girls' pictures, by the researcher's observation, seemed to indicate that they liked living with their families more than did the boys. The girls also showed more friendly expressions for the father, mother, and self figures in the KFDs than the boys, and they also showed a significantly higher proportion of complete face features for the self figure than the boys.

The girls of Mexican descent seem to reflect a more traditional Mexican culture in their KFDs than did the boys. Mexican girls drew significantly more attractive families than the boys, and their pictures seemed to indicate that they enjoyed their family interrelationships more than the boys did.

Hypothesis 2

There is no linear combination of KFD variables which significantly discriminates between boys and girls of Mexican descent. This hypothesis was tested by discriminant analysis. The null hypothesis was tested for the complete

Mexican groups and then for those individuals only with both mother and father present. For the complete group the discriminant analysis yielded a discriminant function with Chi-square equal to 72.4, with degrees of freedom (*df*) equal to 60, and a probability (*p*) equal to .131. No linear combination for the selected variables discriminated significantly between boys and girls of Mexican descent, therefore the null hypothesis is retained.

For the KFDs where mother and father were present, the discriminant analysis function yielded a chi-square equal to 71.3, with degrees of freedom equal to 58, and a probability (*p*) equal to .113. No linear combination of selected KFD variables discriminated significantly between boys and girls of Mexican descent, therefore the null hypothesis is retained for the subgroup also.

Hypothesis 3

There are no significant differences among the KFDs of unacculturated, moderately acculturated, and acculturated children of Mexican descent and Caucasian-American children. Of the 29 variables 25 showed significant differences among the groups. Therefore the null hypothesis 3 is rejected.

The two less acculturated groups showed a significantly higher level of activities for the mother, the self, and

other family members' figures than the acculturated and Caucasian groups.

For the variable ACTYSELF (activity type of subject), the two less acculturated groups drew similar types of activities for the self figure and the activities drawn by the Caucasian and the acculturated groups were similar when these two groups were compared. The drawings for the self-figure done by the two less acculturated groups predominantly portrayed activities related to performing chores, school work, and physical work. The drawings for the self figure by the acculturated and Caucasian groups predominantly portrayed activities related to playing games, watching television, going to parks, riding, and other leisure activities.

The two groups with lower acculturation levels tended to draw their mothers, themselves, and others in the family significantly more physically active than did the acculturated and Caucasian groups.

The two groups with lower acculturation levels tended to draw their mothers, fathers, and themselves in the upper parts of the drawings more often than the acculturated and Caucasian samples. These two lower acculturation groups had no significant differences when their mean scores were compared between themselves, and the acculturated and

Caucasian groups were also not significantly different when their means were compared between themselves.

The unacculturated group drew significantly fewer barriers between the self figure and the mother figure. The moderately acculturated and the acculturated groups did not have significant differences in the number of barriers drawn between the self and the mother figures.

The two groups with lower acculturation levels tended to draw more complete body figures representing their mothers and themselves than the acculturated and Caucasian subjects. There were no significant differences between the two less acculturated groups.

The acculturated and the Caucasian groups tended to draw their mother, their father, their siblings, and the self involved in higher levels of communication. The less acculturated the groups the lower communication levels they drew for themselves and their family members.

The unacculturated and the acculturated groups tended to draw lower cooperation levels for themselves. The moderately acculturated and the Caucasian groups had similar levels of communication for the self figures, and these were slightly higher levels than the other two groups.

The Caucasian group drew higher levels of cooperation for the mother figure than the three groups of Mexican-

descent children who did not show significant differences between the cooperation levels of the mother figures when their mean scores were compared between themselves.

There were no significant differences between the unacculturated group, the moderately acculturated group, and the Caucasian group in drawing low levels of cooperation for their father figures. The acculturated group tended to draw their father figure involved in more cooperating actions than the others groups did.

The unacculturated group tended to show slightly less fathers present in their drawings than the more acculturated groups and the Caucasian group.

Hypothesis 4

There is no linear combination of selected FKD variables that significantly discriminates among unacculturated, moderately acculturated, and acculturated children of Mexican descent, and Caucasian-American children.

This hypothesis was tested by discriminant analysis and three discriminant functions were identified. The criterion for the selection of variables for inclusion in the interpretation was to start with the highest weight on that function and to include those variables whose weights were

at least 50% of the maximum weight. Function 3 was nonsignificant. Function 1 was more important than function 2 and both of these were significant, therefore, the null hypothesis was rejected.

For discriminant function 1, the analysis showed that a randomly selected individual who drew less communicative siblings, higher number of members in the family, and more cooperative fathers was more likely to be in the unacculturated or in the moderately acculturated groups than in the acculturated or Caucasian groups.

In function 2 at least nine variables weighted at least half the size of the maximum weight. The analysis of this function indicated that a randomly selected individual whose picture showed more religious activity, less cooperating fathers, higher levels of activity type for the father, lower levels of activity for others in the family, more complete faces for the self, fewer barriers between the self and the mother, more communicative fathers, more mothers drawn in the upper half of the paper, and higher activity levels of siblings was more likely to be in the fully acculturated group than in the other groups.

**Findings Regarding Other
Pertinent Variables**

Extended families were more commonly drawn by the unacculturated children and by the acculturated children. Information from the KFDs and the interviews seems to indicate that extended-family ties are salient characteristics of the Mexican culture in general. As the new families migrate to the United States they need the support of extended family members who have lived in the United States for a long time and are well established financially and culturally. When the Mexican families become more stabilized and begin to adopt the American culture, they tend to become more individualized and begin to live more independently with only their immediate family members.

As Mexican families become acculturated and more stable they begin the cycle of receiving into their homes recent immigrants of their extended family who need help in the process of establishing and becoming acculturated. Just as in the past they received help from other members of their extended families, now they play the role of assisting other relatives to migrate to this country. A higher level of cooperation was a salient characteristic of the acculturated

group, thus portraying their role as the assistants to the new immigrant families, who depend on them for support. Mexican families with lower acculturation levels were drawn working most of the time. The need for most members of the family, except for the younger members, to be in the working force is an issue of survival. The children and grandparents were commonly drawn as performing house chores, while the parents and older siblings were working.

The Mexican-descent children in all groups saw themselves as members of an extended family. It was common in their KFDs to find drawings of grandparents and other family members more than in the Caucasian sample. The overall results showed that there is a significant difference between the unacculturated children and the acculturated children when compared with the Caucasian-American children in the way they drew their families.

The unacculturated and moderately acculturated children drew similar activities and interrelationships for their families, and the acculturated children's KFDs reflected more similarities in the way they drew their families' activities and interrelationships.

The two most predominant activities drawn for the mother by the unacculturated children were sweeping the floors and cooking. Other actions drawn frequently for the

mother by this group were also related to household chores and nurturing, such as serving dinner, doing laundry, setting the table, cleaning house, etc. The most predominant actions for the fathers in this group were actions related to work performance, standing, and walking. The actions related to household chores for the fathers were very minimal.

The KFD mother actions drawn by children from the moderately acculturated group showed the mothers more often engaged in food preparation activities. Other predominant household-related activities in which the mothers were engaged included sweeping, cleaning house, doing laundry, drying clothes, setting the table, doing dishes, etc. For leisure activities only one child drew his mother playing games.

The moderately acculturated children drew their fathers more often standing or performing some kind of job-related activity. Gardening and other yard work were also other types of prominent activities for the father drawings. Some household-related activities were moderately portrayed for the father figure, such as sweeping, cooking, painting, and cleaning. The father figure was portrayed as enjoying some leisure activities, more than the mother figures.

The KFD mother and father actions drawn by children of Mexican descent from the acculturated sample show their parents watching television, and most actions for both parents depicted leisure activities or recreational activities. The largest percentage of actions for the mothers depicted recreational activities, such as eating dinner, being at a picnic or park, fixing a Christmas tree, playing with family members, hiking with family members, etc. The mother figure was drawn by a few children in this group as engaged in nurturing activities or performing house chores such as setting the table, cooking, cleaning house, serving dinner, doing dishes, fixing a bed. Only one time the mother was drawn as working in her office.

The father was also depicted in recreational activities most of the time, and only once performing house chores. Only one child drew his father, whom he identified as an electrician, climbing a light post as part of his work.

Religious activities and symbols were minimally drawn by children in the acculturated sample. The KFDs in general showed only minimal religious symbols or activities regardless of acculturation level. Monttinen (1988) found the same results when comparing different religious groups. During the interviews many Mexican children reported that their families had recently adopted, or were in the process

of adopting evangelical faiths and were forsaking their traditional Catholic religion.

The KFD mother and father actions drawn by the Caucasian-American sample were also extensively related to recreational activities, such as those drawn by the children of the acculturated sample.

About 60% of the mothers were drawn as engaged in recreational activities. The most common activity for the mother was cooking, other activities common for the mother were performing household chores or family responsibilities. Caucasian children rarely drew their parents working.

The fathers were drawn more often engaged in recreational activities. Sometimes they were drawn either working or returning from work, and a few times performing household-related activities.

The analysis of the variable Like-To-Live-In-Family found that most children in the unacculturated groups indicated liking their families and belonging to the family. The moderately acculturated children indicated more dislike for living in their families, reflecting perhaps their wishes to be more like other children who belonged to well-acculturated and established Mexican families. Most of the time Caucasian children also indicated a favorable experience with their families.

Qualitative Findings

Through personal interviews with the children the researcher was able to find information about the perceived head of the family. Traditionally it is thought that the leadership structure of the Mexican family reflects the concept of "hierarchy" a position that ascribes the father the role of superior authority in the family, and the mother to follow. This concept also presupposes that parents expect to be obeyed when they advise their children, and younger children are expected to obey older children who serve as role models of the Hispanic culture.

The interviews and drawings reveal that half of the children of Mexican descent believe that the father is the head of the family. Approximately one third indicate that both father and mother are heads of the family, with 8% indicating that their mother was the head of the family. It is important to notice that 90% of the children who reported that mother is the head of the family live in single-parent homes where the mother is the head. Only two children in the acculturated group, who came from homes with two parents, indicated that the mother is the head of the home. When asked why they believed it was so, they indicated that the mother made most of the decisions at home and made more money than the father did.

A major change reported in the perception of the family is that as Mexican families become acculturated, both father and mother have to sustain employment outside of the home. As a result of the dual-wage type of family, the mother is also perceived as sharing the role of head of the family with the father. This finding also shows that acculturation has taken place as Mexican families are exposed to a more flexible culture where women and children are allowed to contribute their opinion in the family.

The children from the unacculturated group, still living in a more traditional Mexican home perceive their families as engaged in working and nurturing activities most of the time. The mother is perceived as working in the house caring for the family's daily needs, while the father is perceived as engaged in working to support the family. This group reported lower socioeconomic level, less English-speaking preference, and less opportunity to express their opinions at home. The moderately acculturated children reported similar perceptions about their parents, with the difference that the mother is working outside of the home. This group reported a similar socioeconomic status to those of the unacculturated group, more English-speaking preference when speaking to their friends, speaking Spanish

with their parents, and being able to give their opinion at home sometimes.

The acculturated and the Caucasian-American children reported English-speaking preference with both friends and parents, higher socioeconomic status, and being able to give their opinion at home always. These two groups perceive their family as more active in recreational activities than the two less acculturated groups.

Research Questions

This study sought to answer the following research questions:

1. How do children of Mexican descent draw their families?

The KFDs of this sample depicted families that reflect the Mexican culture, but progressively as they live longer in this country, they adopt more of the Caucasian-American cultural values. The mother was drawn by the children of Mexican descent as the most nurturing figure in the family.

The most recent immigrants tended to depict families engaged in working activities and hardly any recreational activities. Their drawings reflected a lower level of communication when compared with more acculturated children and Caucasians. It appears that there are differences

within the same ethnic group in the way they draw their families and activities because they reflect changes in their self and family perceptions as they proceed through acculturation levels.

2. How do the KFDs of male and female children of Mexican descent differ?

Girls tended to draw the mother figure significantly higher on the page, and they drew significantly greater proportions of complete bodies for mother figures than did the boys. Girls' pictures seemed to indicate that they enjoyed their family interrelationships more than did the boys. The girls also showed more friendly expressions for the father, mother, and self figures than the boys, and they showed a significantly higher proportion of complete face features for the self figure than the boys.

The girls of Mexican descent seem to reflect a more traditional Mexican culture than the boys. Mexican girls also drew significantly more attractive families than the boys, and their pictures seemed to indicate that they enjoyed their family interrelationships more than the boys did. In the Mexican traditional culture, girls show greater admiration for mothers, who play a dominant role in raising the family, and females play a more friendly and submissive role in society. The Mexican-descent sample when taken as

a whole, without making difference between sexes, tends to reflect the similar values and interrelationships in their drawings.

3. How do the KFDs of unacculturated, moderately acculturated, and acculturated children of Mexican descent differ from one another, and how do they differ from those of Caucasian-American children?

The two less acculturated groups showed a significantly higher level of activities for the mother, the self, and other family members than the acculturated and Caucasian groups. The two less acculturated groups drew similar types of activities for the self figure and the activities drawn by the Caucasian and the acculturated groups were similar. The drawings for the self figure done by the two less acculturated groups predominantly portray activities related to performing chores, school work, and physical work. The drawings for the self-figure by the acculturated and Caucasian groups predominantly portray leisure activities.

The two less acculturated groups tended to draw their mothers, themselves, and others in the family significantly more physically active than did the acculturated and Caucasian groups. They also tended to draw their mothers, fathers, and themselves in the upper parts of the drawings more than the acculturated and Caucasian groups. The two

less acculturated groups were not significantly different. The acculturated and Caucasian groups were also not significantly different.

The unacculturated group drew significantly less barriers between the self figure and the mother figure. The moderately acculturated and the acculturated groups did not show significant differences in the type of barriers drawn between the self and the mother figure.

The two groups with lower acculturation levels tended to draw more complete body figures representing their mothers and themselves than did the acculturated and Caucasian group. There were no significant differences between the two less acculturated groups.

The acculturated and the Caucasian groups tended to draw their family members and themselves as more communicative than the other groups. The less acculturated the groups the lower communication levels they drew for themselves and their family members.

The unacculturated and the acculturated groups tended to draw lower cooperation levels for themselves. The moderately acculturated and the Caucasian groups had similar levels of communication for the self figure, and these were slightly higher levels than the other two groups.

The Caucasian group drew more cooperative mother figures than the three groups of Mexican-descent children. The three acculturation groups were not significantly different.

The unacculturated, the moderately acculturated, and the Caucasian groups drew less cooperative father figures than the children in the acculturated group who tended to draw more cooperative father figures.

The discriminant analysis showed that a randomly selected individual who drew less communicative siblings, higher number of members in the family, and more cooperative fathers was more likely to be in the unacculturated or in the moderately acculturated groups than in the acculturated or Caucasian group.

The discriminant analysis also indicated that a randomly selected individual whose picture showed more religious activity, less cooperating fathers, higher levels of activity type for the father, lower levels of activity for others in the family, more complete faces for the self, less barriers between the self and the mother, more communicative fathers, more mothers drawn in the upper half of the paper, and higher activity levels of siblings was more likely to be in the fully acculturated group than in the other groups.

Conclusions

From an analysis of the findings, the following conclusions were made:

1. Children of Mexican descent experience a process of acculturation that proceeds from being totally unacculturated to becoming fully acculturated to the American culture. This process was evident in their KFDs.

2. As Mexican families live in the United States, they assimilate the American culture.

3. Through KFDs children reflect their personal values, those of the family, and of their culture at large. The study thus confirms the usefulness of the KFD in cross-cultural comparison.

4. Interpretations drawn from KFDs should be done according to the cultural background of the children who do the drawings.

5. Children of Mexican descent do not necessarily belong to a specific stereotyped Mexican culture.

6. Children of Mexican descent may reflect cultural differences with shared values from the Mexican and the American cultures.

7. Mexican families may be less communicative, more hard working, and may reflect less interaction between parents and children than the Caucasian-American families.

8. Mexican families still hold many of their traditional cultural values, while they replace some of their values with those of the American culture.

9. Fully acculturated Mexican-descent families may hold more of the values of the American culture than the Mexican culture.

10. The KFD has proven to be useful in understanding children with cultural backgrounds different from the American culture and who may have language barriers, such as recent Mexican immigrants.

Recommendations

Based on the findings and conclusions of this study the following recommendations are suggested for clinical practice and further research.

Clinical Practice

1. Individuals belonging to a given ethnic background may be at different levels of acculturation rather than having a set adopted cultural heritage. Exploration of this issue should be done to better serve a client.

2. A better understanding of the level of acculturation of a client may be very helpful in avoiding mistakes by assuming that all individuals in a given ethnic group share the same cultural values.

3. A child's perception of self and family may be different from the adult's. The KFD may be very helpful in understanding a child's view, especially when the child's language abilities are limited, or he or she may be less verbal than other children.

4. KFDs should be carefully interpreted taking the children's cultural background into consideration.

5. Generalizations should not be made for each individual of a given culture, but should be supported by other information including, but not limited to: demographic information, possible level of acculturation, observations, parental reports, subjective reports, and objective instruments.

6. Recent immigrant families and their children need help and support as they may experience stress or conflicts in the process of becoming acculturated in a country that may offer a very different cultural environment than theirs.

Research

1. This study should be replicated with other Hispanics and with Mexican-descent groups in other states of the United States of America in order to get a better understanding of the acculturation process of their children.

2. Hispanics come from many different countries, they may have different cultural values, and thus they should not be thought of as all being of one culture. More studies like this should be conducted to understand their differences.

3. Other studies should focus on finding the similarities between different cultural groups of America in order to promote unifying aspects that will help the diversity of people of this country live in harmony.

4. Other studies could be conducted with focus on the strengths of other cultural groups to promote learning from each other and to learn to value different cultures.

5. Further studies could be conducted to better understand the experience of newer and older generations of other minority groups to understand the acculturation process of their children.

APPENDIX

APPENDIX A
KFD INFORMATION FOR SCHOOL PRINCIPALS AND
INTERVIEW SCHEDULES

KINETIC FAMILY DRAWING
INFORMATION FOR PRINCIPALS OF SCHOOLS

I. Purpose and Benefits of the study

The purpose of this study is to describe how children of Mexican descent draw their families and to make a comparison with Caucasian-American children. It is hoped that this study will provide information that will help parents and professionals to gain insight into Mexican-descent children's cultural heritage, their shared beliefs, and their presuppositions.

America is a country enriched with the diversity of varied cultural backgrounds; therefore an understanding of other cultures will help to encourage social harmony which in turn will contribute to the advancement of our country. A summary of the methodology, results, and conclusions will be made available to each school.

II. Research Problem

Research on how children of Mexican descent perceive their families, comparing them with Caucasian-American children, is limited. The Kinetic Family Drawing (KFD), a tool which has been proved to be useful in cross-cultural studies, will be used for this study.

III. Research Procedure

The KFD, developed by Burns and Kaufman (1970) has shown promise in cross-cultural use. It reveals the child's self-perception and perception of his/her family relationships. The research procedure will be to ask each child to draw a picture of everyone in his/her family doing something, followed by completing a brief interview.

Strict confidentiality will be maintained in the whole procedure. The drawings and interview responses will be identified by an ID number. A stratified random sample and parental approval for participation will be obtained.

IV. Data Collection

Date:

Number and type of students: 100 Caucasian-American including 50 boys and 50 girls. 250 children of Mexican descent. They will not be in special education (except program for gifted) and with parental permission.

Grades of students: 3 to 6

Time needed; 15- 20 minutes per student

Facilities needed: table, 2 chairs, and a quiet place

GENERATION SCREENING QUESTIONNAIRE

Name: _____ Grade: _____ Age: _____ Sex: _____ -

SCREENING QUESTIONNAIRE

1. Is your father Mexican?

1. Yes 2. No 3. Mixed 4. Not sure

2. Is your mother Mexican?

1. yes 2. No 3. Mixed 4. Not sure

3. Where were you born?

1. In the U.S. 2. Not in the U.S.

4. How many years have you lived in the U.S? _____

Including yourself, how many people live in your house? _____

___ 9. What is your position in your family?

1. I am the only child 2. I am the oldest child
3. I am in the middle 4. I am the youngest child

___ 10. Number your family members from the tallest to the shortest, including yourself:

- _____ Father
_____ Mother
_____ Older brother(s)
_____ Older sister(s)
_____ Self
_____ Younger brother(s)
_____ Younger sister(s)
_____ Others, state who _____

11. Who do you think is the head at home?

1. Father 2. Mother 3. both
4. Don't know 5. Other, state who _____

12. Who makes the most decisions at home?

1. Father 2. Mother 3. both
4. Don't know 5. Other, state who _____

13. Do you get to make suggestions at home?

1. No 2. Sometimes 3. Always

RESEARCHER'S NOTES

I.D. No. _____ Grade _____ Age _____ Sex: M / F

CAUCASIAN/AMERICAN CHILDREN INTERVIEW SCHEDULE

- _____ 1. Your parents are:
1. Married 2. Single 3. Divorced
4. Widowed 5. Remarried
- _____ 2. Who lives in your house?
1. Grandfather 2. Grandmother 3. Father
4. Mother 5. Stepfather 6. Stepmother
7. Brother(s) 8. Sister(s) 9. Other,
state who _____

Including yourself, how many people live in your house? _____

- _____ 3. Name your family members from the tallest to the shortest, including yourself:
- _____ Father
 - _____ Mother
 - _____ Older brother(s)
 - _____ Older sister(s)
 - _____ Self
 - _____ Younger brother(s)
 - _____ Younger sister(s)
 - _____ Others, state who _____

- _____ 4. What is the highest level of education of your parents?

1. Elementary 2. High school 3. College 4. graduate

5. Who do you think is the head at home?
- 1. Father 2. Mother 3. both
 - 4. Don't know 5. Other, state who _____

6. Who makes the most decisions at home?

1. Father 2. Mother 3. both
4. Don't know 5. Other, state who _____

7. Do you get to make suggestions at home?

1. No 2. Sometimes 3. Always

NOTES

APPENDIX B
TABLES FOR SCORING CRITERIA

TABLE 55

Scoring Criteria for
Activity Level

Activity	ACTSEL	ACTMOM	ACTDAD	ACTSIB
Laying	0	0	0	0
Sitting	1	1	1	1
Standing	2	2	2	2
Walking	3	3	3	3
Running	4	4	4	4

TABLE 56

Scoring Criteria for
Activity Type

Type	ATYSEL	ATYMOM	ATYDAD
Sleeping	0	0	0
Watching/listening/sitting/ standing/talking/wating	1	1	1
Reading	2	2	2
Riding	3	3	3
Doing	4	4	4
Throwing	5	5	5
Hitting	6	6	6

TABLE 57

Scoring Criteria for
Body Completion

Body	BODYSEL	BODYMOM	BODYDAD
Complete	0	0	0
All but feet/hand	1	1	1
Arm/leg missing	2	2	2
Head/neck	3	3	3
Head only	4	4	4
Extremity only	5	5	5
Absent	6	6	6

TABLE 58

Scoring Criteria for
Communication Level

Communication	COMSEL	COMMON	COMDAD
Holding person	0	0	0
Touching person	1	1	1
Play/work/eat with person	2	2	2
Talking	3	3	3
Listening	4	4	4
Watching	5	5	5
Sleeping/reading/none	6	6	6

TABLE 59

Scoring Criteria for
Face Completion

Face	FACSEL	FACMOM	FACDAD
Eyes, nose and mouth	0	0	0
Nose missing	1	1	1
Mouth missing	2	2	2
Eyes only	3	3	3
Absent	4	4	4

TABLE 60

Scoring Criteria for
Facial Expression

Expression FACEXD	FACEXS	FACEXM	
Friendly	0	0	0
Neutral	1	1	1
Unfriendly	2	2	2

TABLE 61

Figure Ascendence			
Ascendence	ASCSEL	ASCMOM	ASCDAD
Head in top 1/2	0	0	0
Head in bottom 1/2	1	1	1
Head in top 1/4	2	2	2
Head in bottom 1/4	3	3	3
Head in top 1/8	4	4	4
Head in bottom 1/8	5	5	5

TABLE 62

Scoring Criteria for Grandparent(s) Present in Drawing	
Grandparent(s) Present	
Present	0
Absent	1

TABLE 63

Scoring Criteria for Like-To-Live-In-Family (LILIF)				
Definitely	Probably	Uncertain	Probably not	Definitely not
0	1	2	3	4

TABLE 64

Scoring Criteria for Number of other Relatives Present in Drawing	
0	
1	
2	
3	
4	
5	
6	

TABLE 65

Scoring Criteria for Number of Siblings Present in Drawing	
0	
1	
2	
3	
4	
5	

TABLE 66

Scoring Criteria for Nurturing			
Nurturance NURDAD	NURSEL	NURMOM	
Feeding	0	0	0
Holding	1	1	1
Touching	2	2	2
Homemaking	3	3	3
Grooming	4	4	4
Help/playing/eating	5	5	5
Planting	6	6	6
No nurturing	7	7	7

TABLE 67

Orientation Between Figures	
	ORDM
	ORDS
	ORMD
	ORMS
	ORSM
	ORSD

(Score 0 if figure is facing. example: ORDM; score 0 if dad is facing mom. ORDS; score 1 if dad is not facing self, etc).

TABLE 68

Scoring Criteria for
Parent(s) Missing in Drawing

Person missing	
None	0
Father missing	1
Mother missing	2
Both	3

TABLE 69

Scoring Criteria for
Relative Size of Self

Relative Size of Self	
Accurate size within the family constellation	0
Not accurate size within the family constellation	1

TABLE 70

Scoring Criteria for
Teeth Present

Teeth	TEESEL	TEEMOM	TEEDAD
Absent	0	0	0
Present	1	1	1

TABLE 71

Scoring Criteria for
Total Number of People Present in Drawing

3 to 12

TABLE 72

Scoring Criteria for
Types of Barriers

Type of Barrier	TBARRSM	TBARRSD	TBARRMD
No significant Barrier in Between	0	0	0
Less than two persons in between	1	1	1
Two or more than two persons in between	2	2	2
Barrier hindering physical contact	3	3	3
Barrier inhibiting visual contact	4	4	4

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VITA

Name: Kevin Adolfo Sánchez-Rosado

Place of Birth: Valladolid, Yucatán, México

EDUCATIONAL BACKGROUND:

1978 Bachelor of Arts--Theology and Education
Universidad de Montemorelos, Nuevo León, México.

1982 Master of Divinity--SDA Theological Seminary

1991 Master of Arts--Educational and Developmental
Psychology, Andrews University, Berrien Springs,
MI

2001 Doctor of Philosophy--Counseling Psychology
Andrews University, Berrien Springs, MI

PROFESSIONAL EXPERIENCE:

1978-1981 SDA Intern Minister--Bilingual Ministries,
Texas Conference

1983 Ordination to the Gospel Ministry--Texas
Conference of SDA

1983-1989 Bilingual Pastor and Evangelist--Texas and
Ohio Conferences of SDA

1990-1996 Psychology Graduate Student--Andrews
University

1996-1999 Director of Neuropsychology Department--
Private Sector, Dallas, TX.

1999-2001 Director of Assertive Community Treatment--
Dallas Metrocare (Dallas County MHMR), and
Telecare NorthSTAR.