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Describing Mexican-American Migrant Farmworker Parents:  
A Cluster Analytic Approach

Andrew L. Freeberg, M.A. and Catherine H. Stein, Ph.D.  
Bowling Green State University  
Co-Principal Investigators

## INTRODUCTION

Mexican-American farmworkers are essential to the economic success of the agricultural industry in the midwest. For example, in 1992, migrant farmworkers harvested crops worth eighty-five million dollars in Ohio alone (Cearley, 1993). Yet, government statistics show that the vast majority of migrant farmworkers themselves live in poverty (National Advisory Council on Migrant Health, 1995).

Almost no empirical research has addressed Mexican-American farmworker families. Most of what we know about the lives of migrant farmworkers comes from government census data. Although such data document the adverse conditions faced by migrant families, such aggregated statistics tell us little about the nature of family life. We know little about how migrant farmworker families describe the adequacy of even basic resources such as food and shelter, how they view their family relationships, and how they report aspects of their health and well-being. In addition, we know little about the degree of acculturation among Mexican-American farmworker families to life in the United States and its association with individual and family functioning.

The present research describes aspects of family life, individual health, and psychological well-being as reported by 204 Mexican-American migrant farmworker parents from 102 families in Northwest Ohio. The research uses empirical clustering techniques to describe different family types among the sample of migrant farmworker parents. Specifically, the aim is to identify clusters or subgroups of parents based on their level of acculturation, income, and age considered simultaneously. The research then examines differences in parents' reports of family interaction styles, individual health, and psychological well-being for the different types of migrant farmworker parents.

## BACKGROUND ON MIGRANT FARMWORKERS

### Living and Working Conditions

Migrant farmworkers' incomes are estimated to be extremely low. In a study of farmworkers in California Alaniz (1994) reported an average annual family income of \$5000. Other studies provide information about income levels in areas representing "home-bases" for midwestern migrant farmworkers. For example, Griffith et al., (1995) reported an average family income of \$6,547 in Weslaco, Texas. Similar results have been found among migrant workers in the midwest. In a representative sample of 42 migrant farmworkers in Indiana, Michigan, and Ohio, the average annual family income was \$6500 (Barger & Reza, 1984).

It is widely acknowledged that migrant housing is substandard. In a background paper on housing conditions, the National Advisory Council on Migrant Health (1995) listed common problems such as lack of electricity, plumbing, and heating and cooling systems, inadequate laundry facilities, and severe overcrowding. In addition, housing is often located on or near fields, subjecting migrants to pesticide exposure. If labor camp housing is unavailable, workers often cannot afford housing and must sleep in their vehicles or in the open (National Advisory Council on Migrant Health, 1993). Few studies have empirically documented such difficult living conditions and lack of basic resources. The rate of deaths on the job is also a major concern. In 1987, agriculture surpassed mining as the nation's most hazardous occupation with 1,700 work-related deaths (Rust, 1990).

### Physical and Mental Health Status

The physical health status of migrant farmworkers is among the poorest of any group in the U.S. (National Advisory Council on Migrant Health, 1993). Dever (1991) conducted the most comprehensive study documenting the health status of migrant farmworkers. Utilization data from a total of 6,969 medical encounters were obtained from four migrant health centers in Texas, Michigan, and Indiana. Data were also

collected from two predominantly Hispanic control group counties so that the health status of migrant farmworkers could be compared to that of other Hispanics as well as the general population. Findings showed that migrant farmworkers suffer from numerous complex and serious health problems. The rates of 7 principal diagnoses were found to be dramatically higher in migrant clinics as compared to the general population. Among these were diabetes (338% above the national average), health of infants and children (151% above), acute respiratory infection (97% above), and dermatitis (150% above).

Guarnaccia, Angel, and Angel (1992) conducted an in-depth examination of the impacts of farm work on health, using data obtained through the Hispanic Health and Nutrition Examination Survey (HHANES). The HHANES was conducted between 1982 and 1984 and consisted of a medical history, physical examination, and several health measures designed to identify pathology among samples of 7,462 Mexican-Americans in five southwestern states, 2,834 Puerto Ricans in the New York area, and 1,357 Cubans in Miami, Florida. Of specific interest to the current investigation, the survey included a measure of farm work participation. Significant differences were found on health variables between respondents according to farm work experience. Those who had done farm work reported worse health than those who had not, according to a measure of subjective health status.

Much less is known about the mental health of migrant farmworkers. Many risk factors may be linked to poor mental health among this population, including minority group status. As a population, Mexican-Americans have been considered to experience disproportionate levels of mental health difficulties due to a variety of risk factors. The following factors are commonly cited: effects of immigration (Salgado de Snyder, 1987); stress related to ethnic minority group status (Shrout et al., 1992); conflicts caused by acculturation and negotiating the balance between mainstream and traditional cultural beliefs and practices (Rogler, Cortes, & Malgady, 1991; Rogler, et al., 1987); and low income and educational levels (Texidor del Portillo, 1988). Although these risk factors

may apply to migrant farmworkers, researchers have yet to examine mental health issues among this population.

### MIGRANT FARMWORKER FAMILY LIFE

Very little research has explored the family life of Mexican-American migrant farmworkers. Therefore, researchers interested in understanding midwestern migrant families must draw from the literature on the broader population of Mexican-Americans. In this literature, acculturation is a central construct. In addition, specific characteristics, such as high levels of cohesion and a strong commitment to interacting with family, must be considered

#### Acculturation

One common problem in the study of any ethnic minority group is making overly broad generalizations about the influence of cultural factors (Vega, 1990). For example, Mexican-American families are typically described as more highly cohesive than Anglo-American families and as engaging in more frequent interaction with family members. However, it would be inappropriate to assume that such characteristics uniformly apply to all Mexican-American families.

Acculturation theory suggests that the longer individuals of Mexican descent reside in the U.S., the more they begin to identify with aspects of mainstream culture. It is important to recognize that acculturation does not address specific aspects of family life. Rather, the construct taps the extent of an individual's cultural awareness and identification at a very broad level, usually by examining degree of involvement in "Mexican" versus "Anglo" culture across various areas (e.g. preferences in terms of language, food, and social interactions, etc.). Although a wide range of acculturation levels are found among Mexican-Americans, researchers have yet to examine ways in which these differences influence family interactions, with some rare exceptions (Rueschenberg & Buriel, 1989; Griffith & Villavicencio, 1985).

The bicultural model (Ramirez, 1983) acknowledges the complexity of the acculturation construct. This model suggests that Mexican-Americans may become "Americanized" in some areas while maintaining traditional cultural characteristics in other areas. From this view, acculturation is not an "all or nothing" process. For example, an individual may remain relatively unacculturated, with an ongoing strong identification with his or her Mexican cultural heritage, but embrace more "Americanized" values in certain areas of family life. Others may take pride in Mexican culture in a similar manner and continue to display more "traditional" Mexican styles of interacting with family. A wide range of complex combinations of possibilities exist in describing acculturation and Mexican-American family life.

Socioeconomic status (SES), a correlate of acculturation, further complicates the picture. Negy and Woods (1992) argue that SES must also be considered because higher income and education levels may contribute to the absorption of mainstream values and characteristics. From their view, the increased contact with mainstream educational and occupational social systems that often accompanies a rise in SES may lead to the adoption of mainstream attitudes and behaviors. Although SES and acculturation are related, the two variables may affect the adoption of mainstream values in different ways across different areas of family life. In other words, becoming affluent does not guarantee that Mexican-Americans individuals will become acculturated and experience a decrease in identification with their cultural heritage, or that they will adopt mainstream styles of interacting with family in any given area. Similarly, Mexican-Americans who remain unacculturated, maintaining a strong awareness of and pride in their Mexican cultural heritage, will not necessarily maintain highly "traditional" patterns of interacting with family across all areas.

In summary, the construct of acculturation is important because it helps researchers go beyond overly broad generalizations about cultural characteristics. Acculturation theory suggests that Mexican-Americans vary greatly in the extent to

which they identify with Mexican versus Anglo culture. In addition, the styles of interacting with family may be affected by the acculturation process in certain areas and not others. Socioeconomic status must also be considered in this research area. A rise in socioeconomic status may lead to the absorption of mainstream values in different areas than are accounted for by acculturation.

#### Family Cohesion

Researchers have typically defined family cohesion as "family members' emotional bonding with one another" (p. 74, Goldenberg & Goldenberg, 1990). In general, Mexican-American families have been shown to be more highly cohesive than Anglo families. For instance, researchers have found higher levels of familism among Mexican-Americans (Farris & Glenn, 1976; Sabogal et al., 1987). Other research offers evidence that U.S. Hispanics, as compared to members of the mainstream population, are more collectivist oriented (Triandis, Marin, Lisansky, & Betancourt, 1984; Marin & Triandis, 1985). The extent to which such results apply to migrant farmworker families remains unclear.

#### Commitment to Family

In addition to tending toward high levels of emotional closeness, Mexican-American families have been described as having frequent interaction with family members and exchanging high levels of assistance and support. In general, the literature supports claims that Mexican-Americans engage in more frequent contact with family members and tend to rely heavily on family for various kinds of support (Ramirez & Arce, 1981). For example, Mexican-American individuals have been shown to interact more frequently with extended family members than Anglo or Black families (Mindel, 1980). Mexican-Americans also tend to rely on parents for support and advice with greater frequency than Anglos (Markides, Boldt, & Ray, 1986). Hispanics have a more positive view of family roles as compared to work roles than Anglos (Triandis, Marin,

Betancourt, Lisansky, & Chang, 1982). Again, these research areas have not been considered among migrant farmworker families.

### The Present Research

The present research empirically examines demographic characteristics, aspects of family life, and reports of availability of basic resources in a sample of Mexican-American migrant farmworker parents. Self-reported levels of physical and mental health symptoms are also investigated. The primary goal of the research is to describe migrant farmworker families across these major areas. Empirical clustering techniques are used to identify different types, or subgroups, of parents within the sample according to their level of acculturation, income, and age considered simultaneously. The research then examines differences among the subgroups of migrant farmworker parents in their reports of family interaction styles, availability of basic resources, and individual physical and psychological well-being.

A first set of research questions involves describing the sample of migrant farmworker parents. Specifically, the aim is to identify subgroups of parents based on their level of acculturation, income, and age considered simultaneously. What degree of heterogeneity exists among the sample across these variables? More importantly, when considering the variables simultaneously as they naturally occur, what kinds of empirically distinct types of families emerge?

A second set of research questions involves examining differences among the subgroups of parents in their reports of family interaction styles, availability of basic resources, and individual health and psychological well-being. Do the different types of migrant parents report different styles of interacting with family? Do the subgroups differ in their reports of availability of basic resources, physical health, and psychological well-being?



## METHOD

### Sample

#### Recruitment of Participants

Respondents consist of a stratified random sample of 102 sets of parents (204 total participants) working as migrant farmworkers. To be included in the research, couples needed to have at least one child age 5 years or younger and both the mother and father from each family needed to participate. Each couple was given \$15 for participating in the project.

Respondents were recruited from agricultural labor camps in Northwest Ohio. The population was defined as migrant farmworkers residing in one of 13 counties that had 50 or more migrant farmworkers. According to the most recent census information available (Ohio Department of Health, 1994a), the 13 counties from which the present sample was drawn accounted for 8,156 of the state's 10,360 migrant farmworkers (78.7%) and 126 of the state's 168 certified agricultural labor camps (75.0%). Participants were recruited from 37 different agricultural labor camps representing 11 of the 13 counties. One county was excluded from the sample because the camps were found to no longer house workers and the other was excluded because geographical distance made data collection not feasible.

In order to identify camps to visit for recruitment purposes, alphabetical lists of all certified agricultural labor camps were constructed for each of the 11 counties from which the sample was drawn. Specific camps to visit were then selected at random from those lists. An effort was made to closely match the number of camps and number of participants in the sample to the proportion of camps and workers in the counties comprising the population. As seen in Table 1, this procedure yielded a sample that corresponded very highly to the distribution of migrant farmworkers and agricultural labor camps in Northwest Ohio.

### Procedure

After specific camps to visit were selected, the researcher traveled to those camps to locate eligible families. Of those who met the criteria and were asked to participate, 8 couples declined, yielding an overall response rate of 93 percent. All data were collected in sessions held at participants' place of residence. These data collection sessions involved the researcher or a research assistant meeting separately with each participant to verbally administer the questionnaire. The interviewer and all assistants were proficient in Spanish and had been trained in the administration of the research instruments. The instruments used in the current investigation were available in respondents' preferred language (Spanish or English).

### Sample Characteristics

In total, 204 participants representing 102 families were recruited. Descriptive statistics for the demographic variables used in the study can be found in Table 2. The mean age of participants was 29.67 years ( $SD = 8.71$ ). On average, male participants were older than female participants ( $M = 31.45$  years for men,  $M = 27.94$  years for women). The majority of participants reported being married (82.4%), with all remaining couples (17.6%) describing their marital status as "juntos" (together). The average number of children reported by participants was 3.03 ( $SD = 1.78$ ). The majority of respondents endorsed "Catholic" (78.4), with others endorsing "Protestant" (12.7%), "No religious preference" (8.3%) or "Other" (0.5%). Participants differed significantly by gender on a question concerning current employment status ( $\chi^2 = 17.94$ , 4 df,  $p < .01$ ), with 79.4 percent of the men indicating that they worked more than 25 hours per week compared to 51.9 percent of women. The majority of the couples (55.4%) in the sample earned less than \$5,000 annually, with others reporting earnings of \$5,000 - \$10,000 (27.9%), \$11,000 - \$15,000 (11.8%), or \$16,000 - \$20,000 (4.9%). Over half of the participants (54.9%) had an elementary school education, 26.5 percent reported a junior

high school level of education, 13.2 percent had attended some high school, 3.9 percent were high school graduates, and 1.5 percent had attended some college.

Participants were also asked to provide information regarding their ethnic background, years of experience working as a migrant farmworker, occupational status during the past year, and living situation. Almost all of the participants (97.5%) described their ethnic background as Mexican with the remaining 2.5 percent describing their ethnic background as either Guatemalan, Native American, or Caucasian. The mean number of years of experience in migrant farmwork among participants was 8.90 years ( $SD = 7.90$ ) with male participants reporting significantly more experience than female participants ( $M = 11.05$  years for men,  $M = 6.76$  years for women). During the 12 month period prior to the interview, 35.3 percent of men reported having held a job other than migrant farmwork (e.g. mechanic, construction, iron worker, restaurant, factory work, warehouse, etc.) as compared to 15.7 percent of women (e.g. factory work, cashier, child-care, warehouse, etc.). At the time of the interview (early to mid-summer), the majority of participants were living in housing provided by the grower (91.1%), with the remainder living either in a state-funded temporary housing facility for migrant farmworkers (6.9%) or in their own apartment (2.0%). Eighty-six percent of the participants elected to complete the questionnaire in Spanish and the remaining 13.7 percent completed the questionnaire in English.

### Measures

#### Acculturation Rating Scale for Mexican Americans (ARSMA)

The ARSMA is a 20-item self-report measure designed to assess acculturation (Cuellar, Harris & Jasso, 1980). The 20 items assess acculturation across four distinct areas, as shown by a factor analysis. The four identified factors include: 1) language familiarity, usage, and reference; 2) ethnic identity and generation; 3) reading, writing, and cultural exposure; and 4) ethnic interaction.

### Family Resources Scale (FRS)

The FRS is a 30-item rating scale for measuring the adequacy of resources in households with young children (Dunst & Leet, 1987). The scale measures the adequacy of both physical and social resources, including food, housing, health care, transportation, time to spend with family and friends, sufficient money, and child care. Respondents are asked to rate each item on a 5-point scale (from 1 = "Not At All Adequate" to 5 = "Almost Always Adequate").

### Family Functioning Style Scale (FFSS)

The FFSS (Deal, Trivette, & Dunst, 1988) is a 25-item self-report measure designed to assess qualities of strong families across five different dimensions. These dimensions include: commitment to the family; family cohesion; communication among family members; family competence; and family coping strategies (Trivette et al., 1990). The scale measures the extent to which a family member believes that different strengths and capabilities are characteristic of his or her family. Respondents indicate the degree to which each of the 25 items characterizes their family (from 1 = "Not-At- All-Like My Family" to 5 = "Almost-Always-Like My Family").

### The Nottingham Health Profile (NHP)

The NHP is a self-report questionnaire designed to measure perceived health problems and the extent to which such problems affect normal activities (Hunt, McEwen, & McKenna, 1986). Respondents are asked to indicate "yes" or "no" for 38 items describing various health concerns (e.g. I'm tired all the time, I'm in constant pain, etc.). The NHP provides a profile of health problems in the areas of energy, pain, emotional reactions, sleep, social isolation, and physical mobility.

### Brief Symptom Index (BSI)

The BSI is a 53-item self-report measure designed to assess the amount of distress respondents have experienced within the past month. The scale is a shortened form of the SCL-90, a comprehensive assessment of psychological symptomatology (Derogatis,

1977). Respondents are asked to rate the amount of distress they have experienced for each item on a 5-point Likert type scale (from 1 = Not at All to 5 = Extremely).

## RESULTS

### Gender Differences

Five separate analysis of variance (ANOVA) procedures were conducted to examine overall gender differences in acculturation, family resources, family functioning styles, mental health, and physical health. Scores on the various measures (ARSMA, FRS, FFSS, NHP, and BSI) served as the criterion measures and gender represented the independent variable. There was a significant main effect in overall BSI scores as a function of gender ( $F(1,203) = 4.41; p < .01$ ; men  $M = 0.38$ , women  $M = 0.50$ ). These results indicate that female participants reported higher overall levels of psychological distress as compared to male participants.

Separate multivariate analyses of variance (MANOVA) procedures were performed to examine gender differences across specific dimensions of the mental health, physical health, and family functioning styles scales. In terms of mental health (BSI), the MANOVA indicated significant differences in reported levels of psychological distress as a function of gender ( $F(9,194) = 2.27; p < .05$ ). Subsequent analysis examined the univariate ANOVAs for each of the 9 symptom distress subscales. Women scored significantly higher than men on 3 of the 9 dimensions of psychological distress (somatization, interpersonal sensitivity, and depression). In terms of physical health (NHP), the MANOVA was not significant for gender ( $F(6,197) = 1.81; p = .10$ ). Univariate ANOVAs investigating the effects of gender on the 6 dimensions of physical well-being indicated that women reported significantly higher scores on only one subscale (social isolation). No other significant gender differences were found.

### Cluster Analysis

A K-means clustering technique (Hartigan, 1975) was used to classify respondents into groups according to age, income, and acculturation levels considered

simultaneously. Using the K-means clustering procedure, each individual's age, income level, and acculturation level are depicted as a single point in a Euclidean space whose dimensions are the three variables. The K-means procedure is an iterative method that begins with an initial partition of the data set into a specified number of clusters and computes the centroids of these clusters. Each data point is assigned to the cluster that has the nearest centroid. New centroids of the clusters are then computed after each complete pass through the data and the procedure is repeated until no data points change clusters (Aldenderfer & Blashfield, 1984).

In the present research, cluster solutions that specified 2 through 6 clusters were generated and compared. A four-cluster solution was selected for the present analysis on the basis of low pooled within cluster correlations among the variables, interpretability, a parsimonious number of clusters, a consideration of cluster size, and homogeneity. Results of one-way ANOVA analyses indicated that participants differed significantly by cluster group membership on each of the variables used to cluster participants, including age ( $F(3,200) = 114.23, p < .001$ ), acculturation ( $F(3,200) = 207.45, p < .001$ ), and income ( $F(3,200) = 105.92, p < .001$ ). Table 3 shows the configuration of the four cluster groups generated.

Descriptively, the first cluster consists of 26 of the 204 participants (13%) who have relatively low levels of acculturation, relatively high income levels, and were of moderate age ( $M = 34$  years) in relation to the other groups. This first cluster group will be called "moderate age, higher income, very Mexican" parents. Cluster 2 describes 35 participants (17%) who have high levels of acculturation, low income levels, and are relatively younger ( $M = 23$  years). This group will be called "young, poor, Americanized" parents. Cluster 3 depicts 55 individuals (27%) who are relatively older ( $M = 40$  years), lower in acculturation level, and lower in income level. This third group will be referred to as "older, poor, very Mexican" parents. The remaining 88 participants in Cluster 4 (43%) are relatively younger ( $M = 25$  years), relatively less acculturated, and

have relatively lower income levels. The last group will be called "young, poor, very Mexican" parents.

### Discriminant Function Analysis

In order to understand potential differences between the cluster groups of migrant parents on reports of the availability of basic resources, family factors, and reports of physical and mental well-being, two separate discriminant function analyses were performed. The goal of the discriminant function analysis was to characterize features that distinguished the four cluster groups. A discriminant function analysis approach was selected because it goes beyond examining group differences on particular variables considered separately. Rather, the approach allows for an analysis of how the groups might differ on a pattern of variables considered simultaneously. For example, it may be that a combination of high scores in one area and concurrent low scores (or high scores) in another area yield group differences that might be obscured when examining single factors separately. In the first discriminant function analysis, the variables used were the measure of perceptions of basic family resources and the family functioning styles scale. In a second discriminant function analysis, the measure of physical health and the measure of mental health were used.

A stepwise discriminant function analysis using the reports of basic family resources variable and the family functioning styles subscales as discriminators of cluster membership resulted in two significant discriminant functions, with a third function marginally significant (canonical  $R_1 = .45$ ;  $p = .001$ ; canonical  $R_2 = .23$ ;  $p = .009$ ; canonical  $R_3 = .17$ ;  $p = .058$ ). The first function is characterized by high perceived levels of family resources (standardized canonical loading = 1.12). The second function is characterized by high levels of family "competence," a subscale of the family functioning styles measure (standardized canonical loading = .83). The third function is characterized by concurrent high levels of family "commitment" and low levels of family "communication," both of which are subscales of the family functioning styles scale

(family "commitment" standardized canonical loading = 1.16; family "communication" standardized canonical loading = -.90).

Function 1 (high perceived family resources) discriminated Cluster 2, the "young, poor, Americanized" parent group, from all other subtypes. Only Cluster 2 reported relatively higher levels of basic resources. Function 2 (high levels of family "competence") discriminated Cluster 4, the "young, poor, very Mexican" parent group, from all other subtypes. Cluster 4 was the only subtype reporting somewhat lower levels of family "competence." Function 3 (high "commitment"/low "communication") discriminated Clusters 3 and 4, the "older, poor, very Mexican" and the "young, poor, very Mexican" parents, from Clusters 1 and 2, the "moderate age, higher income, very Mexican" parents and the "young, poor, Americanized" parents. Clusters 3 and 4 were characterized as "High Commitment/Low Communication" whereas Clusters 1 and 2 were "Low Commitment/High Communication." These results are presented in Figures 1, 2, and 3. The second discriminant function analysis was not descriptive, with only one discriminant function being significant.

## DISCUSSION

The present study examined aspects of family life, individual health, and psychological well-being in a sample of 204 Mexican-American migrant farmworker parents representing 102 families in Northwest Ohio. Acculturation, age, and socioeconomic status were also examined in order to better understand and describe the sample of migrant parents. Unlike previous studies, the present research empirically classified participants on these variables considered simultaneously, as opposed to considering only single category variables. After classifying the migrant farmworker parents into distinct subgroups, the research then examined differences between the subgroups on self-reports of family interactions, availability of basic resources, and individual physical health and psychological well-being.



Results provide rich descriptive information about the sample of migrant farmworker parents. Using an empirical clustering procedure, participants in the present sample could be classified into distinct groups based on their age, level of acculturation, and income level. Four different "types" of migrant parents emerged. The first subgroup, Cluster 1, consists of 26 parents who have relatively low acculturation levels, relatively high income levels, and who are of moderate age. Cluster 2 describes 35 parents who have high levels of acculturation, low income levels, and who are younger. Cluster 3 depicts 55 parents who are relatively older, lower in acculturation level, and lower in income level. Cluster 4 describes 88 parents who have relatively low levels of acculturation, low income levels, and who are relatively younger. These various "types" of parents differed on reports of family life, adding support to the usefulness of the cluster groups.

Results from the cluster analysis shed light on the relationship between acculturation and socioeconomic status and the dilemma these factors create for researchers interested in understanding Mexican-American families. Acculturation theory suggests that the longer individuals of Mexican descent reside in the United States, the more they identify with aspects of mainstream culture. Negy and Woods (1992) argue that acculturation should strongly associate with socioeconomic status because higher income levels and levels of educational attainment often involve increased interaction with "mainstream" social systems. From that view, characteristics attributed to Mexican-American groups may be based more on differences in socioeconomic status than on ethnicity. Present cluster findings strongly support the contention that socioeconomic status must be considered in research with Mexican-Americans. However, this is not simply because socioeconomic status and acculturation are always positively related. Rather, complex combinations of these factors were found among the cluster groups.

For two of the four cluster groups, the association between acculturation and socioeconomic status was in the predicted direction. As seen in Cluster 3, the "older, poor, very Mexican" parents and in Cluster 4, the "young, poor, very Mexican" parents, both low acculturation levels and low income levels occur. The positive association between these variables make it difficult to understand the separate influence of each variable on other psychosocial constructs. However, for the two remaining cluster groups, the association between acculturation and socioeconomic status varies. For participants in Cluster 1, the "moderate age, higher income, very Mexican" parents, low levels of acculturation accompany high income levels. A high degree of ethnic identification and cultural pride persist despite higher in socioeconomic status. Alternatively, the "young, poor, Americanized" parents in Cluster 2 report high levels of acculturation and low income levels. Among parents in that group, a stronger identification with aspects of Anglo culture is evidenced despite low socioeconomic status. Acculturation and socioeconomic status appear to represent distinct constructs with unique influences on the family life among participants in the present sample.

A discriminant function analysis was employed to investigate differences among the cluster groups on aspects of family life. Significant differences were found among the groups of parents in their reports of family interactions. The traditional Mexican-American family has been described as maintaining certain cultural characteristics, such as high levels of cohesion and commitment. One would expect "traditional" Mexican-American families to be close emotionally (Triandis et al., 1984), to spend a great deal of time interacting and assisting one another (Markides, Boldt, & Ray, 1986), and to be somewhat patriarchal (Hartzler & Franco, 1985). Present findings indicate that although these traditional styles of interacting with family are consistent with descriptions of some cluster groups, other groups vary from traditional depictions of Mexican-American families.

The "older, poor, very Mexican" parents in Cluster 3 and the "young, poor, very Mexican" parents in Cluster 4 reported family interaction styles high in family "commitment" and low in "communication" with family. The tendency to have a strong commitment to spending time with family and to place less emphasis on communication with family members is consistent with traditional depictions. However, the other two subgroups of parents were characterized by the opposite family interaction styles. The parents in Cluster 1, the "moderate age, higher income, very Mexican" group, and those in Cluster 2, the "young, poor, Americanized" group, reported placing less emphasis on family "commitment" and greater emphasis on "communication" with family members.

The overall pattern of findings related to family interactions highlights the complexity of the acculturation construct. It is particularly interesting to note that parents with low levels of acculturation, those who maintain a strong identification with Mexican culture, reported diverse styles of interacting with family. This finding is consistent with the bicultural model of acculturation (Ramirez, 1983). Changes in values and behaviors toward those of the mainstream occur in some areas and not others. For example, Clusters 3 and 4, subgroups of migrant parents that remain less acculturated, were characterized by more "traditional" styles of interacting with family. However, parents in Cluster 1 who are also low in acculturation levels, were characterized by more mainstream styles of interacting with family. Clearly, acculturation is not an "all or nothing" process. Certain families with a strong awareness of and pride in Mexican culture may maintain more traditional styles of interacting with family, while others may take on values and behaviors more like those of the mainstream.

In addition to reporting diverse styles of interacting with family, the subgroups of parents differed in their self-reports of family "competence." According to the measure used in the present study, family competence reflects degree of agreement regarding family matters. It is interesting to note that both "traditionally" Mexican families and those with more mainstream patterns of family interactions were characterized as highly

competent. The "moderate age, higher income, very Mexican" parents in Cluster 1, the "young, poor, Americanized" parents in Cluster 2, and the "older, poor, very Mexican" parents in Cluster 3 all reported high levels of family competence. Only the "young, poor, very Mexican" parents in Cluster 4 reported relatively less family competence. Based on current self-report data, it seems that families with either mainstream or more traditionally Mexican styles of interacting with family function effectively. It may be that the combination of youth, low income levels, and low acculturation levels contribute to conflict in some families, rather than such conflict being attributed solely to culture.

Overall, it seems that the Mexican-American migrant farmworker families can be characterized by a wide variety of styles of interacting with family. Further, acculturation and socioeconomic status appear to have separate influences on family functioning that vary according to family type. The maintenance of a strong ethnic identification and awareness of one's Mexican cultural heritage does not necessarily translate into more "traditionally" Mexican styles of interacting with family. Consistent with the bicultural model of acculturation, a complex combination of these factors was found among the present sample of migrant farmworker parents.

Results regarding mental and physical health among the sample are not descriptive. Statistics for the measures tapping these areas indicate a tendency to not report symptoms. It is possible that the present sample of migrant farmworkers are an especially robust, psychologically healthy group with few actual symptoms to report. This view is consistent with the selection explanation which posits that persons with psychopathology would not succeed in overcoming obstacles inherent in immigration. Thus, it has been argued that successful immigrants are more psychologically healthy than other members of the same ethnic group (Shrout et al, 1992). This logic may apply to migrant farmworkers whose experience is very similar to international immigration. An alternative explanation describes a tendency among Mexican-Americans and

individuals of lower socioeconomic status to under report mental health symptoms (Ross & Mirowsky, 1984).

Anecdotal experiences from the data collection process suggest that parents in the present sample were experiencing more psychological distress than they reported. The difficult living and working conditions experienced by the migrant farmworker parents interviewed was apparent to the researchers. Yet, many of the parents, especially the fathers, were reluctant to positively endorse any of the mental health items. Future researchers interested in understanding the mental health of migrant farmworkers may do well to consider the possibility that migrant farmworkers have a tendency to under report physical and mental health symptoms.

#### Limitations and Implications of the Present Study

Findings from the present study provide a rich description of the family life of midwestern migrant farmworkers. Results highlight the importance of understanding the role of acculturation, socioeconomic status, and the overall context in which family life occurs. Although the sample describes migrant families with young children in Northwest Ohio, questions remain as to whether the findings generalize to families at other life stages in other regions. Attempts should be made to study migrant farmworkers in other areas of the country. Results regarding aspects of physical and mental health were limited. Some researchers have argued that research methods which encourage Hispanic respondents to openly express their own perceptions of their mental health may be more useful than traditional survey questionnaire methods (Rogler, 1989).

The present study makes several important contributions to the study of migrant farmworker families. Current findings present a very complex picture of the family life of Mexican-American migrant farmworkers. Different "types" of migrant families emerged when considering acculturation, income, and age. It is also notable that the majority of parents sampled reported inadequate basic resources, such as food and shelter.

A variety of more and less "traditionally" Mexican family interaction styles emerged among the subgroups of parents. Different styles of interacting with family emerged across acculturation levels and socioeconomic status. This finding underscores the importance of accounting for these variables in studying Mexican-American families. Acculturation and socioeconomic status may affect family life in different ways for different types of families.

It is also important to note that cohesion and "competence" were represented in families with both more mainstream tendencies and among families with more "traditionally" Mexican styles of interacting with family. There appears to be much flexibility in the ways family cohesion plays out in migrant families. Some may maintain a sense of cohesion through a strong commitment to spending time together. Others may maintain a sense of cohesion through open communication despite spending less actual time together. Migrant parents appear to adopt different styles of interacting with family that are effective under challenging circumstances.

Overall, researchers and practitioners must recognize the diversity in the family life of Mexican-American migrant farmworkers. Many parents in the sample maintain a strong identification with their Mexican cultural heritage, but their styles of interacting with family vary greatly. It seems that it is not sufficient to consider acculturation, socioeconomic status, and family factors separately if the goal is to understand Mexican-American migrant farmworker families. The present study underscores the value of simultaneously considering a number of relevant factors in order to understand the complexity and diversity in the family life of Mexican-American migrant farmworkers.

## REFERENCES

- Alaniz, M.L. (1994). Mexican farmworker women's perspectives on drinking in a migrant community. The International Journal of the Addictions, 29, 1173 - 1188.
- Aldenderfer, M. S. & Blashfield, R. K. (1984). Cluster analysis. Newbury Park, CA: Sage.
- Barger, K. & Reza, E. (1984). Survey of midwestern farmworkers (1983). Project Summary, March 7, 1984.
- Cearley, A. (1993, September 5). Ohio's migrant farm workers chase the American dream. Dayton Daily News, p. N.
- Cuellar, I., Harris, L. C. & Jasso, R. (1980). An acculturation rating scale for Mexican American normal and clinical populations. Hispanic Journal of Behavioral Sciences, 2, 199 - 217.
- Deal, A. G., Trivette, C. M. & Dunst, C. J. (1988). Family Functioning Style Scale. In C. J. Dunst, C. M. Trivette, & A. G. Deal (Eds.), Enabling and empowering families: Principles and guidelines for practice (pp. 179 - 184). Cambridge, MA: Brookline Books.
- Derogatis, L. R. (1977). SCL-90: Administration, scoring and procedures manual for the revised version. Clinical Psychometric Research Unit, Johns Hopkins University School of Medicine.
- Dever, G.E.A. (1991). Migrant health status: Profile of a population with complex health problems. Austin, TX: National Migrant Resource Program.
- Dunst, C. J. & Leet, H. E. (1987). Measuring the adequacy of resources in households with young children. Child: Care, Health, and Development, 13, 111 - 125.
- Farris, B. & Glenn, N. (1976). Fatalism and familism among Anglos and Mexican Americans in San Antonio. Sociology and Social Research, 60, 393 - 402.
- Goldenberg, H. & Goldenberg, I. (1990). Counseling today's families. Pacific Grove, CA: Brooks/Cole Publishing.
- Griffith, D., Kissam, E., Camposeco, J., Garcia, A., Pfeffer, M., Runsten, D. & Pizzini, V. M. (1995). Working poor: Farmworkers in the U.S. Philadelphia: Temple University Press.

- Griffith, J. & Villavicencio, S. (1985). Relationship among acculturation, sociodemographic characteristics, and social supports in Mexican American adults. Hispanic Journal of Behavioral Sciences, 7, 75 - 92.
- Guarnaccia, P. J., Angel, J. L. & Angel, R. (1992). The impacts of farm work on health: Analyses of the Hispanic health and nutrition examination survey. International Migration Review, 26, 111 - 132.
- Hartigan, J. (1975). Clustering algorithms. New York: Wiley.
- Hartzler, K. & Franco, J. N. (1985). Ethnicity, division of household tasks, and equity in marital roles: A comparison of Anglo and Mexican American couples. Hispanic Journal of Behavioral Sciences, 7, 333 - 344.
- Hunt, S. M., McEwen, J. & McKenna, S. P. (1986). Measuring health status. London: Croom Helm.
- Marin, G. & Triandis, H. C. (1985). Allocentrism as an important characteristic of the behavior of Latin Americans and Hispanics. In R. Diaz-Guerrero (Ed.), Cross-cultural and national studies in social psychology (pp. 85 - 104). Amsterdam: North Holland.
- Markides, K. S., Boldt, J. S., & Ray, L. A. (1986). Sources of helping and inter-generational solidarity: A three generation study of Mexican Americans. Journal of Gerontology, 41, 506 - 511.
- Mindel, C. H. (1980). Extended familism among urban Mexican Americans, Anglos, and Blacks. Hispanic Journal of Behavioral Sciences, 2, 21 - 34.
- National Advisory Council on Migrant Health (1993). 1993 Recommendations of the National Advisory Council on Migrant Health. Rockville, MD: U.S. Department of Health and Human Services, Bureau of Primary Health Care. May, 1993.
- National Advisory Council on Migrant Health (1995). Losing ground: The condition of farmworkers in America. Austin, TX: National Advisory Council on Migrant Health, September, 1995.
- Negy, C. & Woods, D. J. (1992). The importance of acculturation in understanding research with Hispanic-Americans. Hispanic Journal of Behavioral Science, 14, 224 - 247.
- Ohio Department of Health (1994a). Ohio migrant census, 1993. Monitor Advocate/Ombudsman, April 1994.



- Ohio Department of Health (1994b). Certification of agricultural labor camps. Unpublished manuscript.
- Ramirez, M. (1983). The psychology of the Americas. New York: Pergamon Press.
- Ramirez, O. & Arce, C. H. (1981). The contemporary Chicano family: An empirically based review. In A. Baron (Ed.), Explorations in Chicano psychology (pp. 3 - 28). New York: Praeger Publishers.
- Rogler, L. H. (1989). The meaning of culturally sensitive research in mental health. American Journal of Psychiatry, 146, 296 - 303.
- Rogler, L. H., Cortes, D. E. & Malgady, R. G. (1991). Acculturation and mental health status among Hispanics: Convergence and new directions for research. American Psychologist, 46, 585 - 597.
- Rogler, L. H., Malgady, R. G., Costantino, G. & Blumenthal, R. (1987). What do culturally sensitive mental health services mean? American Psychologist, 42, 565 - 570.
- Ross, C. E. & Mirowsky, J. (1984). Socially-desirable response and acquiescence in a cross-cultural survey of mental health. Journal of Health and Social Behavior, 25, 189 - 197.
- Rueschenberg, E., & Buriel, R. (1989). Mexican American family functioning and acculturation: A family systems perspective. Hispanic Journal of Behavioral Sciences, 11, 232 - 244.
- Rust, G. S. (1990). Health status of migrant farmworkers: A literature review and commentary. American Journal of Public Health, 80, 1213 - 1217.
- Sabogal, F., Marin, G., Otero-Sabogal, R., VanOss Marin, B., & Perez-Stable, E. J. (1987). Hispanic familism and acculturation: What changes and what doesn't? Hispanic Journal of Behavioral Sciences, 9, 397 - 412.
- Salgado de Snyder, V. N. (1987). Factors associated with acculturative stress and depressive symptomatology among married Mexican immigrant women. Psychology of Women Quarterly, 11, 475 - 488.
- Shrout, P. E., Canino, G. J., Bird, H. R., Rubio-Stipec, M., Bravo, M. & Burnam, M. A. (1992). Mental health status among Puerto Ricans, Mexican Americans, and Non-Hispanic Whites. American Journal of Community Psychology, 20, 729 - 751.

- Texidor del Portillo, C. (1988). Poverty, self-concept, and health: Experience of Latinas. Women and Health, 12, 229 - 242.
- Triandis, H. C., Marin, G., Lisansky, J., & Betancourt, H. (1984). Simpatia as a cultural script of Hispanics. Journal of Personality and Social Psychology, 47, 1363 - 1375.
- Triandis, H. C., Marin, G., Betancourt, H., Lisansky, J., & Chang, B. (1982). Dimensions of familism among Hispanic and mainstream navy recruits. (Technical Report No. 14). Champaign, IL: Department of Psychology, University of Illinois.
- Trivette, C. M., Dunst, C. J., Deal, A. G., Hamer, A. W. & Propst, S. (1990). Assessing family strengths and family functioning style. Topics in Early Childhood Special Education, 10, 16 - 35.
- Vega, W. A. (1990). Hispanic families in the 1980s: A decade of research. Journal of Marriage and the Family, 52, 1015 - 1024.

Table 1. Distribution of Farmworkers and Labor Camps by County for  
the Total Population and the Present Sample

County	Population: Number of Workers (# of camps)	Population: Percentage of Total	Sample: Percentage of Total (# of camps)
Defiance*	70 (2)	0.9	-
Erie*	125 (4)	1.5	-
Fulton	390 (6)	4.8	3.9 (3)
Hancock	65 (2)	0.8	1.0 (1)
Henry	385 (5)	4.7	5.9 (2)
Huron	905 (14)	11.1	8.8 (4)
Lucas	197 (2)	2.4	2.9 (1)
Ottawa	1,060 (22)	13.0	11.8 (4)
Putnam	480 (5)	5.9	4.9 (1)
Sandusky	3,031 (34)	37.2	37.4 (11)
Seneca	550 (8)	6.7	7.8 (2)
Williams	190 (7)	2.3	2.9 (2)
Wood	708 (15)	8.7	12.7 (6)
Totals	8,156 (126)	100	100 (37)

\*denotes county excluded from sampling procedure

Table 2. Characteristics of the Total Sample

Variable	Respondents (N=204)	Percentage
Marital Status	Married	82.4
	"Juntos" (together)	17.6
Religious Preference	Catholic	78.4
	Protestant	12.7
	Other (Jehovah's Witness)	0.5
	No religious preference	8.3
Employment Status	0-10 hours/week	25.0
	10-25 hours/week	9.3
	26-40 hours/week	44.6
	41-65 hours/week	17.6
	> 65 hours/week	3.4
Annual Family Income	< \$5,000	55.4
	\$5,000 - \$10,000	27.9
	\$11,000 - \$15,000	11.8
	\$16,000 - \$20,000	4.9
Living Situation	Housing provided by grower	91.1
	Migrant Rest Center	6.9
	Rent own apartment	2.0
Highest Level of Education	Elementary	54.9
	Secondary (7 - 9)	26.5
	High school (10 - 12)	13.2
	High school graduate	3.9
	Some College	1.5
Ethnic Background	Mexican	98.5
	Other (Guatemalan, Native American, Caucasian)	1.5
Language Preference	Spanish	86.3
	English	13.7
Interviewer Gender	Men	51.5
	Women	48.5
Experience in Farmwork (years)	8.90 (SD = 7.48)	
Respondent Age (years)	29.67 (SD = 8.71)	
Number of Children	3.03 (SD = 1.78)	

Table 3. Cluster Group Membership, Means, and Standard Deviations  
for the Four Cluster Solution

4 Cluster Solution

<u>Group Number (n)</u>	<u>Acculturation</u>	<u>Age</u>	<u>Income</u>
1 (n =26)	1.47 (.26)	34.0 (6.61)	3.38 (.50)
2 (n = 35)	2.95 (.46)	23.1 (4.37)	1.74 (.78)
3 (n=55)	1.47 (.32)	39.8 (6.85)	1.44 (.54)
4 (n=88)	1.43 (.28)	24.7 (4.02)	1.26 (.44)

Figure 1. Discriminant Function Analysis: Family Resources and Family Interactions  
(Function 1 x Function 2 Plane)

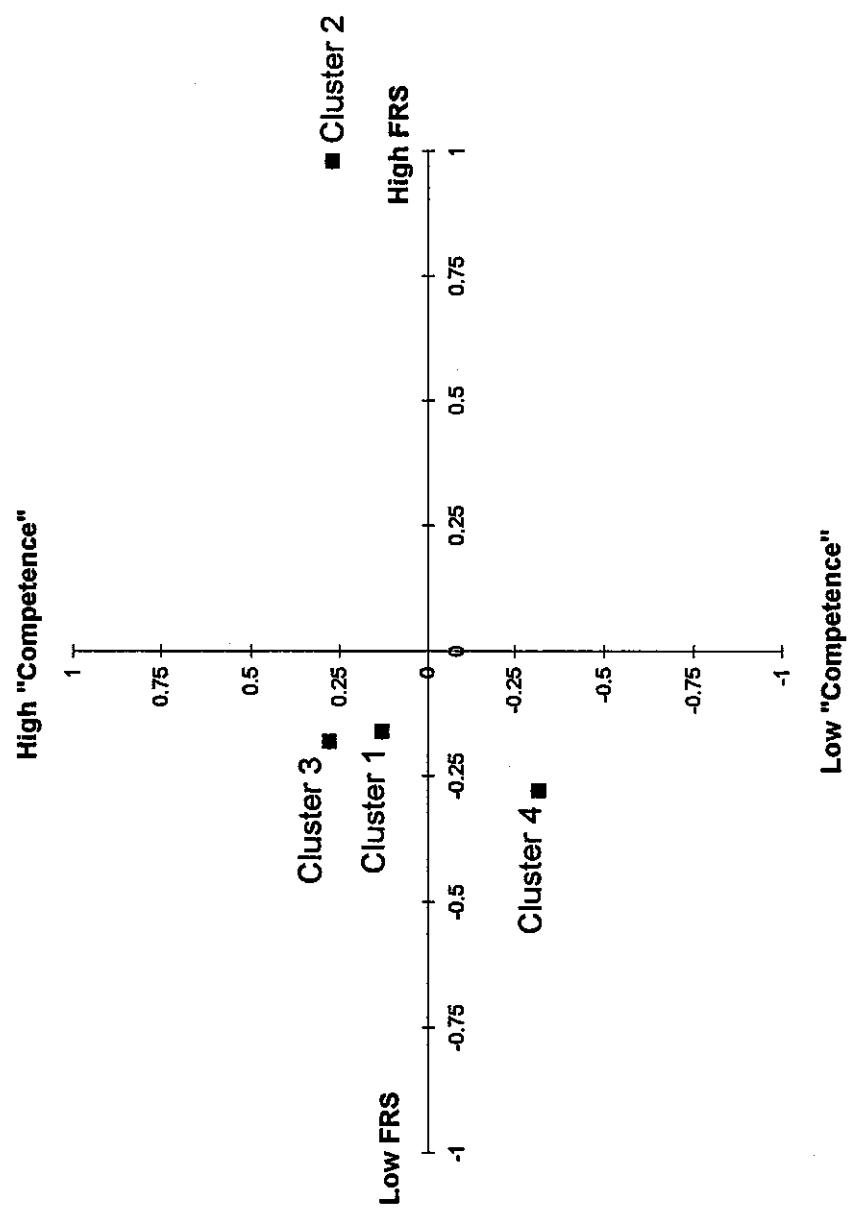


Figure 2. Discriminant Function Analysis: Family Resources and Family Interactions  
(Function 1 x Function 3 Plane)

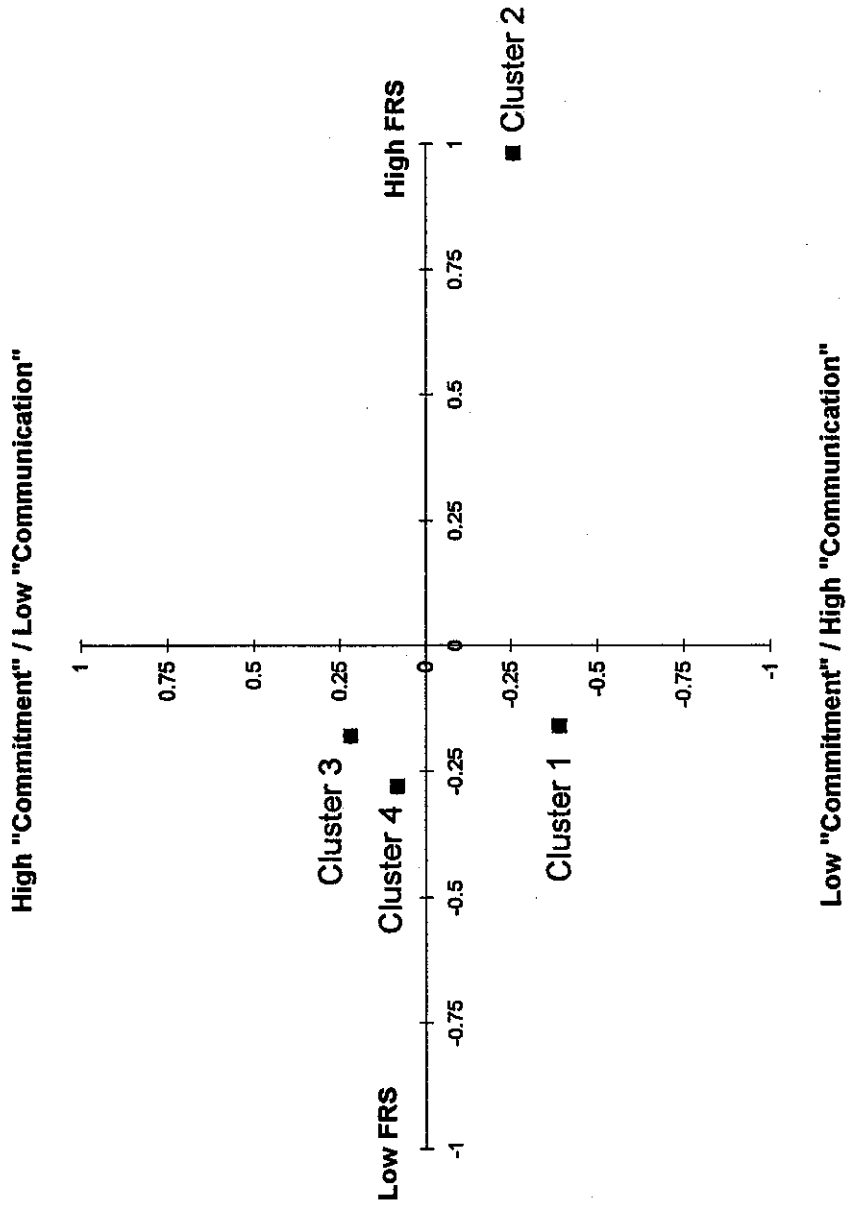


Figure 3. Discriminant Function Analysis: Family Interactions (Function 2 x Function 3 Plane)

