

THE RELATIONSHIP BETWEEN MMPI SCORES AND TRAINING CENTER  
ACHIEVEMENT OF MIGRANT AND SEASONAL FARMWORKER FAMILIES,

by

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## CHAPTER I

### Introduction

The Migrant and Seasonal Farmworkers Association, Incorporated (MSFA), is a private, non-profit organization under contract with the United States Department of Labor to operate migrant and seasonal farmworker programs in North Carolina, Virginia, and Maryland. The services available to migrants and seasonal farmworkers include a variety of emergency assistance, housing, job training and placement, medical, day care, and referral services. MSFA operates a residential family training center located in Rich Square, North Carolina.

The Training Center was begun in 1968 with funds from the Office of Economic Opportunity as a joint effort of the Choanoke Area Development Association (CADA) and the Radio Corporation of America Service Company (RCA). The original premise on which the Training Center was established was that the family is a key factor in the success of educational and vocational training. For that reason, the Training Center has focused on the family and involved all members of the family in some type of educational training simultaneously (Porter, 1974).

Initially, families were recruited only from the four-county area served by CADA, but in 1971 the area was expanded to eleven counties and in March, 1972, the program was extended to all counties in North Carolina (Porter, 1974). In 1973 the funding source became the Department of Labor and the Training Center was included in a broader

program of migrant and seasonal farmworker programs with the state-wide contract awarded to MSFA. MSFA expanded the program to include Virginia in 1975 and Maryland was added in 1976. MSFA has been awarded contracts for Delaware and Georgia programs in 1978, but no Training Center participants have as yet been recruited from these states.

There are residential facilities for fifty families at the Training Center in addition to administrative and professional offices, vocational and educational classrooms, and day care units.

Families eligible for enrollment at the Training Center must conform to the following criteria: meet federal poverty guidelines, have received most of their income in the past 18 months from either migrant or seasonal farm labor, and pass a physical examination. Once a family is enrolled, every reasonable effort is made to overcome any obstacles the family may encounter in completing their training. As long as the family attends classes, does not flagrantly violate basic rules of behavior and does not otherwise threaten the safety of themselves or others at the center, the family remains enrolled until satisfactory job placement occurs or the family members decide to terminate themselves. The training program usually lasts four to six months for the average family.

Once a family relocates from the Training Center, all additional services provided by MSFA including adjustment counseling and follow-up are provided by one of the district offices located at strategic

points throughout the areas served. Further contact with the family by Training Center staff is therefore minimal.

Unfortunately, there have been a few instances when families have enrolled for ulterior reasons such as to obtain free medical services, to "winter over" between seasons, or to avoid legal or financial obligations. Sometimes participants may experience major emotional or psychological problems. For many of these participants, the quality of training that can be achieved is severely limited.

The objective of the MSFA Training Center is to enable participants to achieve full-time, year-round, non-farm employment through vocational and educational training and a variety of supportive services. Improvements are continually being made in the vocational and educational aspects of the program based on feedback from employers as to desired skills and type of equipment used.

To be able to identify those participants who are likely to fail to complete training or to hold a job once placed would be a valuable step in understanding the reasons for the failure and devising strategies for overcoming the obstacles to success. The reasons for failure appear to be primarily personal, involving behavior, attitudes, or values of the individual which inhibit his adjustment with peers and supervisors. When involuntary termination is initiated, it is in response to unacceptable behavior which remains uncorrected after several opportunities to demonstrate improvement. Sometimes participants anticipate a lack of understanding or a negative response from supervisors and decide to quit

"before I get terminated." Failure seems to point toward psychological, emotional, and self-concept issues.

The Minnesota Multiphasic Personality Inventory (MMPI) has been administered to participants at the MSFA Training Center as a part of basic orientation. The MMPI was included as part of basic orientation because of its ability to indicate a variety of extreme personality factors which might require special assistance. It was also perceived as a test which would help the counselor understand the participant's overall personality pattern. MMPI scores have been useful in the general counseling process, but have never been used as screening criteria. The MMPI scores obtained during basic orientation were used in this study.

The MMPI includes several measures of personality likely to correlate with participant attitudes or behavior which lead to failure. Tendencies toward hostility, aggression, suspiciousness, disorientation, or antisocial behavior would seem to relate to failure. High scores on Scales 4 (Psychopathic Deviancy), 6 (Paranoia), 8 (Schizophrenia), and 9 (Mania) of the MMPI indicate that these characteristics may be present. Therefore high scores and failure seemed likely to be associated.

Each scale of the MMPI is plotted on the profile sheet as a T score. This T score, then, is a measure of the degree of variation from the established mean "normal" score. The mean scores of an experimental group have been the focus of many MMPI investigations.

This kind of analysis has served primarily to determine the different effects of a variety of factors in relation to MMPI scores.

In this study, however, the point of interest was in the meaning of a high versus a normal score in relation to Training Center success or failure. A T score of 70 or above is considered clinically significant at the .05 level because a T score of 70 is two standard deviations above the mean.

Personality variables have been recognized as very important factors in educational and vocational training by a number of MMPI investigators. Personality variables that affect a person's vocational career include motivation, the ability to postpone immediate gratifications for future goals, the skills for getting and holding a job, and the ability to cope with stress and other problems throughout his career (Dahlstrom, Welsh, & Dahlstrom, 1975, p. 75).

Completion of a major educational or vocational program as well as application of training after graduation requires special talents, abilities, and competencies. The MMPI has been employed in a number of investigations evaluating the relationships between personality variables and other factors relating to education and vocation. Such factors include the reason why a student enrolls in college, the features of temperament and motivation which help determine his vocational choice and the degree of success in the training program itself, and the attributes which determine his effectiveness in applying training after graduation (Dahlstrom et al., 1975, p. 75).

This research was designed to evaluate the relationship between MMPI scores and achievement in a specific vocational training program.

### Purpose

The primary purpose of the present research was to determine whether there is a relationship between MSFA participant families who are defined as program failures and their MMPI scores obtained during basic orientation procedures at the Training Center. The ability to associate a relationship between program failure and MMPI scores would enable MSFA staff to give greater attention to the needs of these families and to develop techniques for improving their chances of being successful.

A second purpose was to apply the MMPI to the study of migrants and seasonal farmworkers. This is a unique group of people who have not generally been accessible for study by MMPI investigators.

A third purpose was to apply the MMPI to a problem in which the meaning of scores on individual profiles is measured in reference to family behavior. Enrollment at the Training Center is by family unit rather than by individual family members. The MMPI measures individual characteristics, but the individual scores were paired for husbands and wives to study their effect on the family.

Specifically the purposes were as follows:

1. To measure the relationship between scores on Scale 1 (Hypochondriasis) and Training Center achievement.
2. To measure the relationship between scores on Scale 2 (Depression) and Training Center achievement.

3. To measure the relationship between scores on Scale 3 (Hysteria) and Training Center achievement.

4. To measure the relationship between scores on Scale 4 (Psychopathic Deviancy) and Training Center achievement.

5. To measure the relationship between scores on Scale 5 (Masculinity-Femininity) and Training Center achievement.

6. To measure the relationship between scores on Scale 6 (Paranoia) and Training Center achievement.

7. To measure the relationship between scores on Scale 7 (Psychasthenia) and Training Center achievement.

8. To measure the relationship between scores on Scale 8 (Schizophrenia) and Training Center achievement.

9. To measure the relationship between scores on Scale 9 (Mania) and Training Center achievement.

10. To measure the relationship between scores on Scale 0 (Social Introversion) and Training Center achievement.

#### Definition of Terms

In this study the following definitions were pertinent:

1. High score - a T score of 70 or above on any of the clinical scales of the MMPI.

2. Success - a family in which either spouse remained employed for three months after completion of training and job placement.

3. Failure - a family in which neither spouse achieved completion of training, job placement, and three months employment.

4. Training Center achievement - description of the family as a success or a failure.
5. MSFA - Migrant and Seasonal Farmworkers Association, Incorporated.
6. MMPI - Minnesota Multiphasic Personality Inventory.
7. Training Center - residential vocational training facility operated by MSFA in Rich Square, North Carolina.
8. Participant - husband or wife in a family enrolled at the MSFA Training Center.
9. Completion of training - attaining a sufficient degree of skill in one course to obtain employment as determined by test scores, instructor evaluation, or actual employment after minimum course requirements are met.
10. Job placement - actual employment judged to be a full-time permanent position by MSFA staff.

#### Assumptions

The underlying assumptions of this study were as follows:

1. All MMPI profiles which have no L score above 70, no F score above 80, no K score above 70, and no "cannot say" score above 30 (raw score) are valid profiles.
2. Families included in this sample are representative of all families who enroll at the MSFA Training Center.

#### Rationale for Hypotheses

Migrants and seasonal farmworkers have remained on the lower end of the socio-economic ladder in the United States over the years.

Most are members of Indian, Mexican American, Negro or other minority groups. They frequently do not stay in one place long enough to benefit from most forms of governmental assistance at local agencies. Low wages, poor housing, and little access to assistance and support from schools, churches, and governmental agencies have had their influence on the migrants and seasonal farmworkers. Feeling that they are not accepted by others in society and seeing their work skills being carried out more often and more efficiently by machines, they are frequently discouraged (Fletcher, Munger, Ellis, Mock, & Kemmerer, 1974). It seemed likely, therefore, that significant discouragement or ways of coping that may not be conducive to Training Center success would show up as a significant elevation on one or more MMPI scales. A clearly defined indication of a real or potential personality problem was considered to be a more satisfactory criterion of association than a more complex criterion.

The MMPI contains ten clinical scales. Some of these scales were expected to have a higher correlation with success or failure factors than were other scales. A closer look at the scales individually justified more specific hypotheses. Scales 1 (Hypochondriasis), 2 (Depression), 3 (Hysteria), 5 (Masculinity-Femininity), and 0 (Social Introversion) measure personality characteristics which are not as extreme in their effects. Scales 4 (Psychopathic Deviancy), 6 (Paranoia), 7 (Psychasthenia), 8 (Schizophrenia), and 9 (Mania) represent more acute areas of personality. High scores on these scales are indicative of greater hostility,

excessive sensitivity, withdrawal or aggressiveness toward others. It was predicted, therefore, that there would be a significant relationship between scores on Scales 4 (Psychopathic Deviancy), 6 (Paranoia), 7 (Psychasthenia), 8 (Schizophrenia), and 9 (Mania) and success or failure. The relationships between success or failure and scores on Scales 1 (Hypochondriasis), 2 (Depression), 3 (Hysteria), 5 (Masculinity-Femininity), and 0 (Social Introversion) were not expected to be significant.

#### Hypotheses

1. There is no significant difference between the frequencies with which successful and failing families score 70 or above on Scale 1 (Hypochondriasis).

2. There is no significant difference between the frequencies with which successful and failing families score 70 or above on Scale 2 (Depression).

3. There is no significant difference between the frequencies with which successful and failing families score 70 or above on Scale 3 (Hysteria).

4. There is a significant difference between the frequencies with which successful and failing families score 70 or above on Scale 4 (Psychopathic Deviancy).

5. There is no significant difference between the frequencies with which successful and failing families score 70 or above on Scale 5 (Masculinity-Femininity).

6. There is a significant difference between the frequencies with which successful and failing families score 70 or above on Scale 6 (Paranoia).

7. There is a significant difference between the frequencies with which successful and failing families score 70 or above on Scale 7 (Psychasthenia).

8. There is a significant difference between the frequencies with which successful and failing families score 70 or above on Scale 8 (Schizophrenia).

9. There is a significant difference between the frequencies with which successful and failing families score 70 or above on Scale 9 (Mania).

10. There is no significant difference between the frequencies with which successful and failing families score 70 or above on Scale 0 (Social Introversion).

All hypotheses will be tested in the null form.

## CHAPTER II

### Review of Literature

Several studies have been reported on migrant or agricultural workers. Studies have focused on ethnic self-identification and social attributes (Miller, 1976); locus of control, self-esteem, and autonomy among members of the United Farm Workers (Hoffman, 1976); value orientations among ethnic subgroups (Dempsey, 1973); and teacher interaction with migrant students compared with non-migrants (Tyo, 1973). The studies of migrants and farmworkers were not directly relevant to the present study except to support the idea that migrants and farmworkers are typically from minority groups, share a low socio-economic status, and have not been reached effectively by past efforts to include them in the mainstream of society (Fletcher et al., 1974).

A review of the MMPI literature revealed no research involving a migrant or seasonal farmworker population sample. Very little has been reported involving subjects that may be compared with migrants and seasonal farmworkers.

One study was done using the MMPI to assess the personality characteristics of farmers (Brayfield & Marsh, 1957), but the subjects were dissimilar to the migrant and seasonal farmworker population of the present study. These farmers were white veterans receiving on-the-farm training in Kansas, and most of them owned their own

farms and grew corn and other grain which typically does not involve migrant or seasonal farm labor.

The MMPI research with a sample most similar to MSFA participants was a study of a rural, isolated, Negro sample (Gynther, Fowler, & Erdberg, 1971). Their subjects were 32 males and 56 females who were residents of a small southwestern Alabama, all Negro, rural community where cotton farming was the major occupation with less than \$1,000 per year average family income. The purpose of their research was to illustrate the danger of a "blind" interpretation of the MMPI with no regard for socio-cultural differences. Subjects were selected by community leaders as normally functioning residents with no history of mental hospitalization or prison records. Subjects were administered the taped version of the MMPI as a group and were paid \$2.00 for their time. Validity scores, profile scale scores, high point analysis, item analysis, Goldberg's neurotic-psychotic index, actuarial codebooks, and computer summaries were all considered in analysis of the data. All analyses suggested these subjects would likely be considered extremely deviant and mostly psychotic. As a result of their study these authors called for a moratorium on interpretation of profiles from subjects dissimilar in background and experience from normative groups until appropriate norms can be developed.

The question of whether MMPI profiles of blacks and whites reflect different cultural factors that cannot be adequately explained by individual variations has been discussed in several other studies.

Gynther (1972) reviewed the literature on comparisons of MMPI scores among blacks and whites and concluded that distinctive differences do exist. The differences are partially explained in terms of social desirability ratings of items with black-favored items represented disproportionately on key scales. The degree of difference was further influenced by education, residence, and cultural separation. Both normal and institutionalized blacks generally obtained higher scores on Scales F, 8, and 9 than whites. He concluded that prospective black employees are disadvantaged when the MMPI is used for screening and that the MMPI is less accurate in diagnosing black psychiatric patients than white psychiatric patients. Construction of an MMPI based on black norms was recommended.

Powell and Johnson (1976) also reviewed a number of studies on the MMPI among blacks and enumerated the problems of interpretation. Special MMPI norms for blacks were discussed pro and con. They concluded that the MMPI may be used to the disadvantage of black persons even by properly trained professionals if the problems they cited are ignored.

Butcher, Ball, and Ray (1964) compared Negro and white differences on the MMPI among college students while controlling for variables of age, sex, education, institutional differences, and socio-economic level. Both socio-economic and other subcultural factors were found to influence MMPI characteristics. Additional norms were felt to be desirable as a basis for more accurate profile interpretation.

These studies on MMPIs of blacks and whites suggested a need to control racial bias of MMPI scores in the present study. However, since MSFA participants are similar in socio-economic status, in type of work experience, and in degree of social participation, no significant distribution of MMPI scores due to race was expected.

Several studies have been reported using the MMPI as a predictor of selected variables. McClelland and Rhodes (1969) studied the MMPI as a predictor of job success for hospital aides and orderlies. There were 37 nurse's aides (females) and 23 orderlies (males) still employed and included in the study. The MMPI was administered either before or just after employment. There was no difference in the mean scores of those who took the MMPI before employment and those who took it just after. Specific individual job performance measures were evaluated as job success criteria: quality of work; volume of work; ability to follow directions; acceptance of responsibility; effective use of time, equipment, and supplies; resourcefulness; ability to organize; personal grooming; attendance record; observance of confidentiality; relationship with others; average number of absences per month; number of months employed; number of hours absent per month; and presence or absence of recorded behavior detrimental to the job. Results of this study showed that objective measures of absenteeism were the criteria most predictive of job success. The researchers concluded that biographical data was a more useful predictor of job success than the MMPI.

The relationships between MMPI scores and job performance measures of fire fighters have been studied by Arvey, Mussio, and Payne (1972). Subjects were 73 fire fighters who had completed the MMPI when applying for work. Eleven dimensions of fire-fighter performance and an overall job performance rating were correlated with MMPI scores. Some significant relationships were observed, but the correlations were too low to be very useful in predicting fire-fighter performance.

Drake (1962) found that MMPI patterns were useful for prediction. He found that a pattern where Scales 4 and 9 are high and 5 is not high was a significant predictor of underachievement. Subjects for this study were 1,004 entering male freshmen at the University of Wisconsin.

College students at the University of Iowa were the subjects of a study using the MMPI to predict those students who later require personal counseling (Cooke & Kiesler, 1967). The experimental group (clients) was made up of 40 males and 40 females who applied for counseling 5 months to 3 years after enrollment. The control group (nonclients) was randomly selected from incoming freshmen and checked to ascertain that they had never applied for any type of counseling. For both male and female groups, clients had a significantly higher total MMPI mean and a significantly higher neurotic tetrad (Scales 1, 2, 3, and 7) mean than nonclients. Only male clients had a significantly greater frequency of scales with T scores of 70 or above than male nonclients. Males in both groups had significantly

higher MMPI scores than females. The conclusions were that students who later become clients generally have more elevated MMPI scales than those students who never apply for counseling or therapy.

MMPI differences between 32 terminators and 28 continuers in youth counseling were studied by Horton and Kriauciunas (1970). Comparisons were made on L'Abate's Maladjustment Index, Leary's Interpersonal Systems Levels I and III, and MMPI scores. Only male terminators obtained significantly higher scores on the Maladjustment Index. However, all terminators obtained significantly lower scores on MMPI F, Paranoia, Schizophrenia, and Mania scales. The authors concluded that poor adolescent prospects for counseling are those characterized by marked rebellion toward authority.

Another study considered the use of the MMPI to predict conscientious hotline workers (Evans, 1976). Subjects were 56 applicants to CONTACT, the hotline in London, Ontario. There were 15 males and 41 females. The MMPI was administered to all subjects prior to their acceptance. Training was provided to all subjects uniformly in groups of 8 to 14. One 3-hour introductory session, a residential weekend workshop on counseling skills, followed by six weekly Wednesday evening sessions of technical training were provided. Subjects were divided into conscientious (N=30) and nonconscientious (N=36) groups based on records of the number of shifts each subject completed over the next three months. First a stepwise discriminant analysis was performed on raw and K-corrected scale scores. Discrimination levels were considered inadequate for

selection purposes. Next an empirical scale was developed called the Hotline Perseverance Scale (HPS). By the use of a specification equation based on standard MMPI scales and the HPS, 90 percent of the conscientious and 96 percent of the nonconscientious group were classified correctly.

Predictive studies based on MMPI scores have had limited success in establishing levels of reliability adequate for screening purposes (Arvey et al., 1972; Cooke & Kiesler, 1967; Horton & Kriauciunas, 1970; McClelland & Rhodes, 1969). The most success has been accomplished through the combination of MMPI scores and other variables (Drake, 1962; Evans, 1976). This suggested that MMPI scores alone do not account for sufficient personality variations to be useful as predictors. The first step toward prediction, however, was to determine whether there is an association between MMPI scores and Training Center success or failure.

The use of paired spouse MMPI profiles to evaluate family success or failure seemed quite logical in the present study because the MSFA Training Center is based on the family concept. The review of literature revealed no specific use of paired spouse profiles in relation to employment or training achievement, but several studies were found that seemed to support the application of this method.

The relationship of parent personality to behavioral disturbances in their children has been investigated in recent years by many researchers. Handel (1965) pointed out that a variety of psychological factors can be better understood by the study of whole families. He

reviewed research on families and their interaction patterns in order to understand how a family functions. He reviewed therapy methods, field methods, projective methods, and controlled experiments, but concluded that there are no established methods for studying families.

Frank (1965) reviewed studies on the role of the family in the development of personality in the child. He found no consistent relationships between specific emotional experiences in the family and the development of personality or personality disturbances in the child.

Wolking, Quast, and Lawton (1966) compared MMPI profiles of parents of behaviorally disturbed children with the profiles of parents from the general population. Parents of children accepted as patients by the Division of Child Psychiatry of the University of Minnesota Medical Center were routinely given the MMPI. The final sample included 538 mothers and 393 fathers representing 544 families. The MMPI profiles of these parents were compared with the profiles of the normative subjects for the MMPI. Since 86 percent of the original standardization group were parents, the normative profiles were considered equal to parents from the general population. Highly reliable mean differences were found on 11 scales for mothers and on 9 scales for fathers. The clinic parents differed from the MMPI standardization group when frequencies and elevations of high- and low-point code types were compared. Mean-coded MMPI profiles were presented for the mothers and fathers of eight groups established

on the basis of their children's psychiatric diagnoses. No variation was shown by groups on the mother's profile shapes, but the profiles of fathers showed some tendency to covary with diagnosis.

Significant relationships between mothers' MMPI scales and pathological behaviors of their children and between fathers' MMPI scales and their children's pathological behaviors were found in a more recent study by Bradley, Wakefield, Lee Yom, Doughtie, Cox and Kraft (1974). The Schizophrenic, Depression, and F scales of both parents were associated with the children's pathological behaviors. Hafner, Butcher, Hall, and Quast (1969) reported that there is a growing body of MMPI literature pertaining to parent personality and child behavior. They reviewed these MMPI studies and reported several significant findings. Parents of disturbed children produced more deviant MMPI profiles than nonclinic parents, but mean profile elevations for the clinic parents were below those of a psychiatrically disturbed adult population. Other studies reviewed compared profile similarity of adolescents' MMPIs and their parents' MMPIs, or of college students' MMPIs and those of their parents. Some similarities were found. Still other studies, that were perhaps the most relevant, were those that directed their attention to the mother-father relationships and the MMPI. The findings were that moderate or marked dissimilarity in the MMPI profiles for husbands and wives appeared to correlate with poor child adjustment; that as measured by the MMPI, parents of disturbed boys were less similar to each other than were parents of normal boys; and that parent pairs from "troubled

families" as measured by the MMPI did not have either complementary or conflicting personality characteristics to a greater or lesser degree than expected by chance. The conclusion of the reviewers was that interprofile analysis of parent MMPIs "may provide essential information about significant interpersonal dimensions of the child's life situation, such as the prevailing emotional climate, the potential for communication within the family, and the type of models provided" (Hafner et al., 1969, p. 187).

The present use of paired MMPIs for husbands and wives to evaluate family success or failure seemed clearly supported by these studies of parent personalities in relation to behavioral disturbances in their children.

Several studies were found which investigated the MMPI in relation to occupational differences (Blum, 1969; Daniels & Hunter, 1949; Schaffer, 1976; Verniaud, 1946). All supported the idea of occupational differences on the MMPI. Daniels and Hunter (1949) found the MMPI to be fairly sensitive in measuring individual "work needs" in relation to the suitability of occupations with certain personality demands. Blum (1969) compared MMPI scores of male psychiatric patients that had been grouped into physicians (P), miscellaneous professionals (MP), and non-professionals (NP). Significant mean differences were found between P and MP on Scale 6, between P and NP on Scales F, K, 2, 8, and 0 and between MP and NP on Scales F, K, and 0.

Schaffer (1976) found significant mean differences between four diagnostic groups of male inpatients based on MMPI code types for types and levels of jobs held, amounts of job success achieved, and for levels of job satisfaction attained. The more severe the maladjustment, the less likely the men were to have been employed above the semiskilled level of occupations and the more likely to have been unemployed for longer periods.

Neither of these studies on occupational differences considered distinctions relevant to the areas of vocational training provided to subjects of the present study. Subjects in the present study can be homogeneously defined as unskilled or non-professional.

The MMPI literature was further searched for the development of a specific scale which might be useful in the present study. A scale for measuring "Work Attitude" was found (Tydlaska & Mengel, 1953) which seemed potentially useful. Further investigation of studies using this scale, however, revealed no applications of this scale relevant to the present study. Since the development of this scale was oriented more toward employment than toward training, it may be more useful if administered at the completion of training.

In summary, migrants and agricultural workers are typically from minority groups and have a low socio-economic status (Dempsey, 1973; Hoffman, 1976; Miller, 1976; Tyo, 1973). They have not been reached effectively by past efforts to include them in the mainstream of American society (Fletcher et al., 1974). Several investigations have focused on socio-cultural influences on the MMPI (Butcher et al., 1964;

Gynther, 1972; Gynther et al., 1971; Powell & Johnson, 1976). Two reviews of studies comparing MMPI scores of blacks and whites concluded that interpretation of MMPI profiles of black persons present some problems which should not be ignored (Gynther, 1972; Powell & Johnson, 1976). Whether differences in MMPI scores of blacks and whites are due to race, socio-economic, or other sub-cultural factors seems unclear. Both socio-economic and sub-cultural factors have been found to influence MMPI scores (Butcher et al., 1964).

When the MMPI as a predictor of other variables has been investigated, mixed results have been found. Correlations between MMPI scores and other variables were too low to be considered useful in some studies (Arvey et al., 1972; Cooke & Kiesler, 1967; Horton & Kriauciunas, 1970; McClelland & Rhodes, 1969). When patterns of MMPI scores or combinations of MMPI scores with other variables were used, predictive ability was considered more useful (Drake, 1962; Evans, 1976).

One study pointed out that a variety of psychological factors can be better understood by the study of whole families (Handel, 1965), while another study found no consistent relationships between specific emotional experiences in the family and the development of personality or personality disturbances in the child (Frank, 1965). Support was found for a relationship between MMPI scores of parents and the pathological behaviors of their children (Bradley et al., 1974; Hafner et al., 1969; Wolking et al., 1966). Hafner et al. (1969) reviewed several studies that focused their attention on the mother-father

relationships using the MMPI. They concluded that interprofile analysis of parent MMPIs would be useful.

Occupational differences on the MMPI also were supported (Blum, 1969; Daniels & Hunter, 1949; Schaffer, 1976; Verniaud, 1946). An empirical scale designed to measure "work attitude" had been developed (Tydlaska & Mengel, 1953), but no applications to training programs were found.

## CHAPTER III

### Procedure

Included in this chapter is a description of all procedures used in the collection and analysis of the data, as well as the rationale for application of these procedures.

#### Selection of Subjects

Beginning in October, 1975, adult participants enrolled in the Training Center have taken the MMPI as part of their basic orientation. During January, February, and March, 1976, the MMPI was administered in groups to all who had enrolled at the Training Center during that month. From April, 1976, through August, 1976, the MMPI was omitted for new participants. Since September, 1976, the MMPI has been administered individually to new participants as part of basic orientation. Families who enrolled in 1977 or later were not included in this study because of the possibility that records indicating success or failure are incomplete.

Participants who scored low on the Adult Basic Learning Exam (generally below sixth-grade reading level) were encouraged to listen to the taped version of the MMPI rather than trying to read the booklet form. There was one problem with the taped version: a distortion of the sound due to a malfunction of the tape recorder made the tape difficult to understand for some participants.

At the beginning of this study a total of 142 participants had taken the MMPI. Of these, 57 females and 44 males had profiles

(scores) which were believed to be valid. The criteria for determining valid profiles were established for the purposes of this study as follows: L scale must not be above 70 T score, F scale must not be above 80 T score, K scale must not be above 70 T score, and "cannot say" scale must not be above 30 raw score.

While a T score of 70 or more is usually considered as having some significant meaning (70 being equal to two standard deviations above the mean), a T score of 80 or more was believed to be a more appropriate indicator of an invalid test for Scale F. In a study of low critical raw-score values (LCR-SV) the F scale was found to be the best single indicator of validity. According to this study the chances of having an invalid profile when the raw score was below 16 (corresponds to T score of 80) was less than 1 in 1000 ( $p < .001$ ) (Dahlstrom, Welsh, & Dahlstrom, 1972, p. 140).

On the other validity scales, L and K, a T score above 70 indicates such a strong tendency to deny problems or symptoms of problems that clinical scales are likely to be lowered and thus invalid. Even below 70, Scale K is a "correction" scale. The value of K indicates the degree of denial. A K-corrected profile then is one in which designated percentages of the K raw score are added to Scales 1, 4, 7, 8, and 9. All profiles in this study are K-corrected scores.

Of the 57 females and 44 males who had valid profiles there were 21 females and 8 males whose spouse's MMPI profile was not valid.

The remaining 36 families were listed together and given to the statistical records supervisor in the central office of MSFA. Information was received from the official participant records as to whether the family completed training, the date of job placement for both spouses, whether each was still employed after three months, and if not, the date of termination and reason given. Of these 36 families, 8 did not have adequate records to determine success or failure. One family moved to Ohio and one to California with no follow-up completed. In 2 other cases, there was more than one job placement indicated, but the record was unclear whether to consider the subjects still employed after three months. The remaining 4 families were not contacted for the 3-month follow-up or, if so, the results were not reported. There remained 28 families with complete records who became the subjects of this study.

#### Instrument

The MMPI was selected for this study primarily because it was already being used as an aid in counseling and MMPI records were available for study. The MMPI is a widely used measure of personality variables and has been extensively discussed in the research literature both as a subject of study and as an instrument for the study of many other variables. Dahlstrom et al. (1975) have compiled a list of over 6,000 references to MMPI research.

There are 566 statements in the MMPI to which each subject is asked to answer true or false as the statement applies to him. The content of these items ranges widely over views of one's self and

others, over personal feelings and social attitudes, over physical and mental symptoms, over beliefs, habits, and past experiences. The original scales of the MMPI were constructed empirically by contrasting the item replies of highly selected groups of psychiatric patients to the way a large group of normal adults answered these items. For general use of the MMPI, three validity scales and ten clinical scales are scored and plotted in a profile.

The three validity scales, L, F, and K, provide information about the acceptability of a particular set of answers from a test subject. The validity scales are scored as a separate group from the clinical scales and are evaluated before the rest of the test profile is interpreted. The L scale is designed to detect the general tendency to distort one's answers in a strongly favorable way. The F score reflects the extent to which a subject has marked answers that are very rarely marked either by normal subjects or by patients of various kinds. Rare answers can reflect actual personality deviations or may be due to an unwillingness to cooperate with the test instructions, serious reading difficulties, inattention, confusion, or even a deliberate intention to appear poorly adjusted on the test. The K score is a more subtle measure of a subject's tendency to distort his answers in either an unfavorable or a favorable direction. By adding parts of the K score to the raw scores of some clinical scales, the influence of these test-taking sets has been shown to be offset to a considerable extent. K-corrected scores are routinely used in MMPI interpretation and

were used in the present study (Baughman & Dahlstrom, 1968, pp. 232-234).

There are ten clinical scales of the MMPI. A brief description and the implications of a high score on each scale, compiled from two sources (Carson, 1969; Dahlstrom et al., 1972), follows:

Scale 1 is Hypochondriasis. This scale was designed to diagnose persons who show an abnormal concern for their bodily functions. Their worries and preoccupations with physical symptoms typically persist in the face of strong evidence against any valid physical infirmity or defect. Worry over health dominates their lives and often seriously restricts the range of their activities and interpersonal relations. The classic picture of hypochondriacs also includes egocentricity, immaturity, and lack of insight into the emotional basis for their physical concerns. A high score on this scale usually indicates a pessimistic attitude and excessive concern for health which tends to interfere with the performance of normal responsibilities. The usual pattern is an excessive amount of energy and attention directed toward perceived illness or inability and frequent contact with medical services.

Scale 2 is Depression. Depression is characterized generally by pessimism of outlook on life and the future, feelings of hopelessness or worthlessness, slowing of thought and action, and frequently by preoccupation with death and suicide. Depression can be a disorder itself or can complicate personality patterns of almost any kind. This scale is a sensitive reflector of current

mood and degree of dissatisfaction with one's life situation. High scorers are shy and nonaggressive, reserved and socially distant, dissatisfied, emotional, high strung, and prone to worry.

Scale 3 is Hysteria. This scale was developed to identify people who use physical symptoms as a means of solving conflicts or avoiding mature responsibilities. These physical disorders may appear only under stress, with no demonstrable inadequacy apparent in ordinary circumstances. Where one single physical symptom is the focus of hysteria, dramatic reactions can occur such as loss of hearing, or paralysis of some part of the body. In most cases, however, there are less dramatic manifestations and physical symptoms are more covert. High scores indicate people who participate readily in activities and social situations. They are talkative, outgoing, cheerful, emotional, prone to worry, and clever. These subjects are likely to be naive and self-centered and to deny that anything is wrong. They lack insight.

Scale 4 is Psychopathic Deviancy. This scale was developed to measure the personality characteristics of the amoral and asocial subgroup of people with psychopathic personality disorders. Major characteristics include repeated and flagrant disregard for social customs and mores, an inability to profit from punishing experiences as shown in repeated difficulties of the same kind, and an emotional shallowness in relation to others. Since he is relatively free of conflicts and does not show anxiety until actually in serious difficulty, the psychopathic deviate may go undetected by friends

and acquaintances until the situation demands evidence of a sense of responsibility, appreciation of social patterns, or personal and emotional loyalties. Item content ranges widely, reflecting the alienation of the person from his family and the extension of difficulties to school and to authorities generally. High 4 people are generally characterized by angry rebelliousness against family or society or both. Many high 4's have an apparent inability to plan ahead or recklessly disregard the consequences of their behavior. Usually social relationships are shallow and strong loyalties of any kind are rarely developed. Therapy is generally not very effective in producing change in these individuals.

Scale 5 is Masculinity-Femininity. This scale was originally designed to identify personality features of male homosexuality. The scale is far from reliable in detecting these characteristics, however. Many of the men who score high would never make any overt expression of their sexual preferences because of inhibitions or inner conflicts. There is also some question as to the appropriateness of the procedures used in developing this scale. The items are the same for males and females and the scores are reversed so that for females the higher the number of items endorsed, the lower the T score. This means that the higher the T score the more strongly this individual's attitudes and interests resemble those of the opposite sex. High scores for males indicate greater emotional sensitivity, more peaceable and social disposition, and general aesthetic interests. High scores

for females suggest a more adventurous spirit, more athletic and outdoor interests, and more aggressiveness.

Scale 6 is Paranoia. Paranoia is seldom diagnosed by itself but is frequently applied as one part of some other personality disorder. The concept of paranoia involves a set of delusional beliefs, frequently including delusions of reference, influence, and grandeur. Although the persons showing these personality features may appear to be well oriented to reality and integrated in the relation of one delusion with another in their belief structure, they may show misinterpretations of their life situations markedly out of keeping with their ability and intelligence. Paranoid characteristics may occur with schizophrenia, depressive reactions, or more rarely in otherwise intact persons. They may be temporary and reversible or long-standing and progressively more involved. There is in paranoia a basic pervasive suspiciousness and interpersonal sensitivity. High 6 scorers may be described as suspicious and brooding, harboring grudges, and usually feeling in some way they are not getting what should be coming to them.

Scale 7 is Psychasthenia. The term psychasthenia is no longer in wide use. Another term for this disorder is the obsessive-compulsive syndrome. Personality features include obsessive thoughts or ideas and compulsive rituals or behavior patterns. Also included are some forms of abnormal fears, worrying, difficulty in concentrating, guilt feelings, and excessive vacillation in decision making. Often noted are excessively high standards on morality or intellectual

performance, self-critical or debasing feelings and attitudes, and assumption of rather remote and unemotional aloofness from some personal conflicts. High scorers tend to be obsessively worried, tense, indecisive and unable to concentrate. They experience considerable anxiety and self-doubt.

Scale 8 is Schizophrenia. Schizophrenia is considered a psychotic pattern. Most commonly, persons with this disorder are characterized as constrained, cold, apathetic, or indifferent. Other people see them as remote and inaccessible, often seeming sufficient unto themselves. Delusions with varying degrees of organization, hallucinations (either fleeting or persistent and compelling), and disorientation may appear in various combinations. Inactivity or endless repetition of the same thing may accompany the withdrawal of interest from other people or external objects and relationships. These persons frequently perform below the levels expected of them on the basis of their training and ability. High scorers on 8 almost always feel alienated, misunderstood and peculiarly not a part of the general social environment. They have fundamental and disturbing questions about their own identity and worth. They are somewhat confused about how one goes about the business of being a socialized human being. Many of these persons feel that they are hopelessly lacking something fundamental which is the key to successful relations with others.

Scale 9 is Mania. Three features characterize this pattern: overactivity, emotional excitement, and flight of ideas. The activity may lead to a great deal of accomplishment but is frequently

inefficient and unproductive. The mood may be good-humored euphoria but may on occasion be irritable and temper outbursts are frequent. The enthusiasm and overoptimism characteristic of persons with this pattern may lead them into undertaking more than they can handle. The milder forms of mania may be difficult to distinguish from the behavior of ambitious, vigorous, and energetic normals. Males with high 9 scores tend to be sociable, energetic, and open. They may be described as talkative, verbal, individualistic, impulsive, enthusiastic, adventurous, and curious. Their acquaintances also describe them as prone to worry, self-dissatisfied, and conventional. Females may be described as frank, courageous, and idealistic. There is a high energy level among this group as reflected in the terms talkative, enthusiastic, and versatile.

Scale 0 is Social Introversion. Items refer to features of thinking, social participation, and emotional expression. Social introversion is generally characterized by withdrawal from social contacts and responsibilities. Little real interest in people is displayed. In contrast, social extroversion involves a seeking of social contacts and a sincere interest in people. High scoring males may be described as slow in personal tempo, stereotyped, and lacking originality in approach to problems. The picture seems to be one of a general insecurity. High scoring females may be described as modest, shy, self-effacing and sensitive or socially submissive. There are indications of emotional warmth and interest in home and family.

The scales are described above as independent measures, but MMPI interpretation generally focuses on the total profile which includes the influences of the scales on each other.

### Data Analysis

Husbands and wives were determined to have a high MMPI score if one or both spouses scored 70 or above on a scale. Table 1 shows husbands and wives paired together but with separate notations of clinical scales with high scores by success or failure.

Chi square was applied in testing the significance of the difference between proportions of the families rated success or failure and the families who scored 70 or above on each clinical scale of the MMPI. A 2 x 2 table of frequencies was prepared for each clinical scale. The critical value of chi square at the .05 level of significance for 1 degree of freedom is 3.84 (Ferguson, 1971, p. 451).

Other variables which might relate to success or failure were tested. These included race, enrollment classification, frequencies of husbands and wives separately with high scores on each scale, frequencies of families with high scores on all scales combined, with no high scores on any scales, and with high scores on five combinations of scales suggested by a consulting clinical psychologist. Only enrollment classification was significantly related to success or failure. The influence of race on the MMPI was questioned in the review of literature, but no significant distribution of scores based on race was found (see Appendix A).

TABLE 1

Distribution of Scores on MMPI Clinical Scales by Family,  
by Spouse, and by Training Center Achievement

Family		MMPI Scales									
		1	2	3	4	5	6	7	8	9	0
<u>Successful</u>											
1	Husband	-	-	-	-	-	-	-	-	X	-
	Wife	-	-	-	-	-	X	X	X	X	-
2	Husband	-	-	-	-	-	-	-	-	-	-
	Wife	X	X	-	-	-	X	-	X	-	-
3	Husband	-	-	-	X	-	-	-	X	X	-
	Wife	-	-	-	-	-	X	-	X	-	-
4	Husband	-	-	-	-	-	-	-	-	-	-
	Wife	-	-	-	-	-	-	-	-	-	-
5	Husband	-	-	-	-	-	-	-	-	-	-
	Wife	-	-	-	X	-	-	-	-	X	-
6	Husband	-	X	-	X	-	-	-	-	X	-
	Wife	-	-	-	X	-	X	-	-	-	-
7	Husband	-	-	-	-	-	-	-	-	X	-
	Wife	-	-	-	-	-	-	-	-	-	-
8	Husband	-	-	-	-	-	-	-	-	X	-
	Wife	-	-	-	X	X	-	-	-	X	-
9	Husband	-	X	-	-	-	-	-	-	-	-
	Wife	-	-	-	X	-	-	-	X	-	-

( - denotes T score < 70; X denotes T score ≥ 70)

TABLE 1 - Continued

Family	MMPI Scales										
	1	2	3	4	5	6	7	8	9	0	
<u>Successful (continued)</u>											
10	Husband	-	-	-	X	-	-	-	-	X	-
	Wife	-	-	-	-	-	-	-	-	-	-
11	Husband	-	-	-	-	-	-	-	-	-	-
	Wife	-	-	-	-	-	-	-	-	-	-
12	Husband	X	X	-	X	-	-	-	-	-	-
	Wife	-	-	-	-	-	-	-	-	-	-
13	Husband	-	-	-	-	-	-	-	-	-	-
	Wife	-	-	-	-	X	-	-	-	X	-
14	Husband	-	-	-	X	-	-	-	-	-	-
	Wife	-	-	-	-	-	-	-	-	-	-
15	Husband	-	-	-	-	-	-	-	X	-	-
	Wife	-	-	-	-	-	-	-	-	X	-
16	Husband	-	-	-	-	-	-	-	-	-	-
	Wife	-	-	-	-	-	-	-	-	-	-
17	Husband	X	-	X	X	-	X	X	X	-	-
	Wife	-	-	-	-	-	-	-	-	-	-
18	Husband	-	-	-	X	-	-	X	X	-	-
	Wife	-	-	-	X	-	X	X	X	-	-
19	Husband	-	-	-	-	-	-	-	-	-	-
	Wife	-	-	-	X	-	X	-	X	-	-
20	Husband	-	X	-	-	-	-	-	-	-	-
	Wife	-	-	-	-	-	-	-	-	-	-

( - denotes T score < 70; X denotes T score ≥ 70)

TABLE 1 - Continued

Family		MMPI Scales									
		1	2	3	4	5	6	7	8	9	0
<u>Failing</u>											
1	Husband	-	-	-	-	-	-	-	-	-	-
	Wife	-	-	-	-	-	-	-	-	-	-
2	Husband	-	-	-	-	-	-	-	-	X	-
	Wife	-	-	-	X	-	-	-	-	X	-
3	Husband	-	-	-	-	-	-	-	-	-	-
	Wife	-	-	-	X	-	-	-	X	-	X
4	Husband	-	X	-	X	-	-	-	-	-	-
	Wife	-	-	-	-	-	-	-	-	-	-
5	Husband	-	-	-	-	-	-	-	-	-	-
	Wife	-	-	-	X	-	-	-	-	-	-
6	Husband	-	-	-	-	-	-	-	-	X	-
	Wife	-	-	-	X	-	X	-	X	X	-
7	Husband	-	-	-	-	-	-	-	-	-	-
	Wife	-	-	-	-	-	X	-	X	X	-
8	Husband	-	-	-	-	-	-	-	-	-	-
	Wife	-	-	-	-	-	-	-	-	-	-

( - denotes T score < 70; X denotes T score ≥ 70)

## CHAPTER IV

### Results and Discussion

#### Subjects

The final sample consisted of 28 families with complete data on both husbands and wives. Fewer than one-fifth of the families were migrants and the others were seasonal farmworkers. Racial composition was 46 percent black, 29 percent white, and 25 percent Indian.

Approximately one-fourth of both husbands and wives completed high school, while half of the wives and slightly less than half of the husbands completed one to three years of high school. Most of the others had completed seventh or eighth grade, but two of the husbands had completed only first or second grade. Reading scores on the Adult Basic Learning Exam were below sixth-grade level for 43 percent of husbands and 11 percent of wives. Those with reading scores below sixth-grade level were encouraged to take the tape-recorded version of the MMPI.

Husbands ranged in age from 18 to 47 with a mean age of 27.6 years while the wives ranged from 16 to 48 years old with a mean age of 24.3. The average couple had been married 3.6 years and had 1.9 children.

The average family was enrolled at the Training Center for 4.9 months. Vocational choices for husbands, from highest to lowest enrollment, were: welding, auto mechanics, plumbing and wiring, and electronics. For wives, from highest to lowest enrollment, vocational

choices were: general office technology/retail sales, day care aide, nurse's aide, and electronics. Characteristics of the subjects are summarized in Table 2.

MMPI scores for the 56 spouses ranged from no scales with scores of 70 or above to six scales of 70 or above. Paired profiles of husbands and wives ranged from no scales with scores of 70 or above to seven scales of 70 or above (refer to Table 1 above).

Twenty families (71 percent) were termed successful based on at least one spouse remaining employed when follow-up was done after three months. There were eight families (29 percent) who were termed failures. Of these eight families, seven relocated prior to completion of training with length of enrollment ranging between one week and three months. The other family completed training and was placed on a job but quit after six weeks because of marital problems.

#### Analysis of Data

Chi square values for each scale are shown in Table 3. Values ranged from a low of 0.01 for Scale 8 to a high of 2.59 for Scale 0. None of the chi square values for any scale reached the critical value of 3.84 required for significance at the .05 level.

#### Tests of Hypotheses

Hypothesis 1 referred to the relationship between MMPI scores on Scale 1 (Hypochondriasis) and Training Center achievement. The chi square value for Hypothesis 1 is 1.34, less than 3.84 required for significance at the .05 level. The null hypothesis, as predicted, cannot be rejected. Therefore, it cannot be said that there is a

TABLE 2

## Demographic Characteristics of Families Studied

Characteristic	Families		Husbands		Wives	
	N	%	N	%	N	%
<u>Enrollment Classification</u>						
Seasonal Farmworker	23	82.1				
Migrant	5	17.9				
Total	28	100.0				
<u>Race</u>						
Black	13	46.4				
White	8	28.6				
Indian	7	25.0				
Total	28	100.0				
<u>Age</u>						
Less than 20 years			3	10.7	4	14.3
20-24 years			8	28.6	13	46.4
25-29 years			8	28.6	9	32.1
30-34 years			5	17.9	1	3.6
35-39 years			2	7.1	-	-
40 years of older			2	7.1	1	3.6
Total			28	100.0	28	100.0
<u>Education</u>						
6th grade or less			2	7.1	2	7.1
Grades 7-8			8	28.6	5	17.9
Grades 9-11			12	42.9	14	50.0
12th grade			6	21.4	7	25.0
Total			28	100.0	28	100.0
<u>Years Married at Enrollment</u>						
Less than 1 year	5	17.9				
1-3 years	11	39.3				
4-6 years	9	32.1				
7 years or more	3	10.7				
Total	28	100.0				

TABLE 2 - Continued

Characteristic	Families		Husbands		Wives	
	N	%	N	%	N	%
<u>Number of Children</u>						
None	2	7.1				
One	12	42.9				
Two	6	21.4				
Three	3	10.7				
Four	4	14.3				
Five	1	3.6				
Total	28	100.0				
<u>Vocational Class Enrollment</u>						
Auto Mechanics			8	28.6	-	-
Day Care			-	-	7	25.0
Electronics			2	7.1	3	10.7
General Office/Retail Sales			-	-	14	50.0
Nurse's Aide			-	-	4	14.3
Plumbing & Wiring			5	17.9	-	-
Welding			13	46.4	-	-
Total			28	100.0	28	100.0
<u>Duration of Training</u>						
Less than 4 months	7	25.0				
4-6 months	16	57.1				
7 months or more	5	17.9				
Total	28	100.0				
<u>Training Center Achievement</u>						
Success	20	71.4				
Failure	8	28.6				
Total	28	100.0				

TABLE 3

Chi Square Values for MMPI Scores and  
Training Center Achievement by Scale

Scale	Number of Families with High Scores		Value of Chi Square	Level of Significance
	Successful*	Failing**		
1	3	0	1.34	ns
2	5	1	0.53	ns
3	1	0	0.41	ns
4	11	5	0.13	ns
5	2	0	0.86	ns
6	7	2	0.26	ns
7	3	0	1.34	ns
8	8	3	0.01	ns
9	9	3	0.13	ns
0	0	1	2.59	ns

\* N = 20

\*\* N = 8

relationship between scores on Hypochondriasis and Training Center achievement.

Hypothesis 2 referred to the relationship between MMPI scores on Scale 2 (Depression) and Training Center achievement. The chi square value for Hypothesis 2 is 0.53, less than 3.84 required for significance at the .05 level. The null hypothesis, as predicted, cannot be rejected. Therefore, it cannot be said that there is a relationship between scores on Depression and Training Center achievement.

Hypothesis 3 referred to the relationship between MMPI scores on Scale 3 (Hysteria) and Training Center achievement. The chi square value for Hypothesis 3 is 0.41, less than 3.84 required for significance at the .05 level. The null hypothesis, as predicted, cannot be rejected. Therefore, it cannot be said that there is a relationship between scores on Hysteria and Training Center achievement.

Hypothesis 4 referred to the relationship between MMPI scores on Scale 4 (Psychopathic Deviancy) and Training Center achievement. The chi square value for Hypothesis 4 is 0.13, less than 3.84 required for significance at the .05 level. The null hypothesis cannot be rejected. A significant relationship was predicted, but it cannot be said that there is a relationship between scores on Psychopathic Deviancy and Training Center achievement.

Hypothesis 5 referred to the relationship between MMPI scores on Scale 5 (Masculinity-Femininity) and Training Center achievement. The chi square value for Hypothesis 5 is 0.86, less than 3.84 required for significance at the .05 level. The null hypothesis,

as predicted, cannot be rejected. Therefore, it cannot be said that there is a relationship between scores on Masculinity-Femininity and Training Center achievement.

Hypothesis 6 referred to the relationship between MMPI scores on Scale 6 (Paranoia) and Training Center achievement. The chi square value for Hypothesis 6 is 0.26, less than 3.84 required for significance at the .05 level. The null hypothesis cannot be rejected. A significant relationship was predicted, but it cannot be said that there is a relationship between scores on Paranoia and Training Center achievement.

Hypothesis 7 referred to the relationship between MMPI scores on Scale 7 (Psychasthenia) and Training Center achievement. The chi square value for Hypothesis 7 is 1.34, less than 3.84 required for significance at the .05 level. The null hypothesis cannot be rejected. A significant relationship was predicted, but it cannot be said that there is a relationship between scores on Psychasthenia and Training Center achievement.

Hypothesis 8 referred to the relationship between MMPI scores on Scale 8 (Schizophrenia) and Training Center achievement. The chi square value for Hypothesis 8 is 0.01, less than 3.84 required for significance at the .05 level. The null hypothesis cannot be rejected. A significant relationship was predicted, but it cannot be said that there is a relationship between scores on Schizophrenia and Training Center achievement.

Hypothesis 9 referred to the relationship between MMPI scores on Scale 9 (Mania) and Training Center achievement. The chi square value for Hypothesis 9 is 0.13, less than 3.84 required for significance at the .05 level. The null hypothesis cannot be rejected. A significant relationship was predicted, but it cannot be said that there is a relationship between scores on Mania and Training Center achievement.

Hypothesis 10 referred to the relationship between MMPI scores on Scale 0 (Social Introversion) and Training Center achievement. The chi square value for Hypothesis 10 is 2.59, less than 3.84 required for significance at the .05 level. The null hypothesis, as predicted, cannot be rejected. Therefore, it cannot be said that there is a relationship between scores on Social Introversion and Training Center achievement.

#### Discussion and Implications

The primary purpose of this research was to determine whether there is an association between MMPI scores and Training Center achievement. Since all of the chi square values obtained in comparing the difference in proportions of high or normal scores and successful or failing families were below the critical value for significance, the scores on individual clinical scales of the MMPI have not been shown to have a relationship with Training Center achievement.

There are several possible explanations for the results obtained. One possibility is that the research design did not allow for a

thorough investigation of the problem. Drake (1962) studied MMPI patterns rather than individual scales as predictors and found that a combination of Scales 4 and 9 high and Scale 5 not high to be a significant predictor of underachievement for male college students. Evans (1976) studied the MMPI to predict conscientious hotline workers and considered two additional uses of the MMPI besides individual scales. He found discrimination levels by scales inadequate, but found that a specific combination of standard MMPI scales and the Hotline Performance Scale provided satisfactory predictions.

Five combinations of high scores likely to indicate failure patterns of participants at the Training Center were obtained from a clinical psychologist who serves as consultant to the Training Center. Chi square values were computed on the present family sample for these five patterns, but no relationships were found significant. A copy of the letter suggesting these five patterns and a table of chi square values are included in Appendix B.

Another possible explanation for the lack of significant results is the definition of success and failure used in this study. Termination from the program could be due to factors less related to personality. For example, economic pressures, influence of relatives or friends outside the Training Center, a job opportunity, or a simple lack of interest could explain termination from the program.

Perhaps a comparison of mean scores from MMPI results obtained during orientation and other results obtained at the time of completion

of training might reveal a significant difference which would provide a more meaningful evaluation of Training Center achievement.

A possibility exists that the selection of families to be included in the sample was biased by some undetermined factor which affected the profile validity. No indication of bias has been perceived, but it cannot be ruled out due to different types of administration: individually or in groups and by booklet or tape-recorded versions. Dahlstrom et al. (1975) have discussed the influence of test instructions and concluded that the possibility of bias does still exist, even when using K-corrected scores (pp. 132-139).

A second purpose of the present study was to apply the MMPI to the study of migrants and seasonal farmworkers. Eighty percent of the migrant families were failures while less than 20 percent of the seasonal farmworkers were failures. A chi square analysis of this proportionate difference, using Yates's correction for continuity (Ferguson, 1971, pp. 188-189) because of the small number of migrant families, was made and found to be significant (chi square = 5.12,  $p < .05$ ).

MMPI scores were still not significant, however, when analyzed separately by enrollment classification. The conclusion may be drawn that factors other than high MMPI clinical scores are associated with Training Center achievement. One of these factors is enrollment classification. Further MMPI research on migrants and seasonal farmworkers should test whether there are significant mean MMPI score differences between the two groups.

The present study considered migrants and seasonal farmworkers as a homogeneous group and some comment seems justified regarding the application of the MMPI to this group. No hypotheses apart from those relating to MMPI scores and Training Center achievement were proposed for this purpose. However, because of the extensive discussion in the literature regarding race and MMPI scores, the chi square test of significance between observed and expected frequencies of high scores according to race was computed (see Appendix A). The fact that no significant differences in proportions of scores were found due to race seems to support the position that socio-economic and sub-cultural factors have greater influence than race on MMPI scores. There seemed to be a higher incidence of clinical scores above 70 among the migrants and seasonal farmworkers included in this study than would be expected in a sample of the general population. If this observation is correct, profiles of migrants and seasonal farmworkers may be subject to misinterpretations similar to those found by Gynther et al. (1971). A need for further research on use of the MMPI with migrants and seasonal farmworkers is indicated.

A third purpose was to apply MMPI scores of paired spouses to a family variable. Since there has been no development of a family score or a family profile, each spouse's MMPI was scored individually. The MMPI scales use different norms for males and females due to the sexual bias of test items. The method used in this study of pairing husband and wife profiles seemed appropriate for the study of family success or failure. Strong support for the use of paired spouse

profiles as a family score was taken from Hafner et al. (1969) who called for an interprofile analysis of the MMPIs of parents as a means of understanding their child's life situation. Further research is needed in the development and validation of family profiles and of couple profiles for the MMPI. Their usefulness in family and child research seems clearly indicated.

## CHAPTER V

### Summary

The MSFA Training Center offers vocational training for migrant and seasonal farmworker families who wish to obtain full-time, year-round employment. Families are eligible if, in the past eighteen months they have been employed seasonally in farmwork, meet poverty guidelines, and pass a physical exam. Vocational training lasts four to six months with the family in residence at the Training Center and all family members enrolled in either day care, public school, or Training Center programs for adults such as Nurse's Aide, Plumbing and Wiring, Electronics, Day Care, Welding, Auto Mechanics, or Retail Sales. Adult Education classes are also part of the training for most participants.

Why some families drop out of training or do not stay on the job after their training is a question that has not been satisfactorily answered. One possible answer is that failure to meet Training Center objectives is due to personality factors. The Training Center Counseling Department has routinely administered the MMPI to adult participants at the beginning of their training. With the data from this personality inventory available for study, it seemed appropriate to determine whether MMPI scores of participants were related to the family's success or failure in meeting Training Center objectives. To be able to identify the families who may drop out would enable

the counselors to work more closely with those families in discovering and overcoming the factors that contribute to the family's failure.

One thing that had to be considered in planning the study was that Training Center enrollment is by family rather than by individual and likewise termination of training is also by family. Therefore, families were considered to be the subjects of this study. MMPI profiles for families who enrolled during 1975 or 1976 numbered 142. Each of these profiles was evaluated for validity. Profiles which had more than 30 items unanswered were omitted as were profiles which had L or K scale T scores greater than 70. Profiles with an F scale T score above 80 were also omitted. Of the remaining 57 females and 44 males, there were 36 families with valid profiles for both spouses. Eight of these families were later found to have inadequate records for determining success or failure, leaving a final sample of 28 families.

Because of the enrollment-by-family factor, a problem was posed as to how the MMPI scores of individuals could be utilized in studying a family variable. The decision was made to pair the husband's and wife's profiles for each family. Since routine interpretation of MMPI profiles at the Training Center is based primarily upon the ten standard clinical scales, each scale was considered individually for possible association with Training Center achievement. MMPI scores are plotted as T scores which means that a score of 70 or above could be considered clinically significant. A family was thus considered to have a high score on a particular scale if either husband or wife or

both had a score of 70 or above. Each pair of family profiles in this way was determined to have either a high or normal score on each scale.

Training Center achievement was determined as successful or failing depending on whether one or both spouses or whether neither spouse was still employed three months after completion of training and job placement. The crucial question of this investigation was whether there is a significant relationship between successful or failing families and the frequencies with which the families scored 70 or above on one or more of the MMPI clinical scales.

Ten specific hypotheses were proposed. No significant relationship was predicted between success or failure and high score frequencies on Scale 1 (Hypochondriasis), Scale 2 (Depression), Scale 3 (Hysteria), Scale 5 (Masculinity-Femininity), and Scale 0 (Social Introversion). These scales measure less severe personality disorders that seemed unlikely to relate to Training Center achievement. A significant relationship was predicted between success or failure and high score frequencies on Scale 4 (Psychopathic Deviancy), Scale 6 (Paranoia), Scale 7 (Psychasthenia), Scale 8 (Schizophrenia), and Scale 9 (Mania). These scales measure more severe personality disorders and seemed more likely to relate to Training Center achievement.

Each hypothesis was tested in its null form by chi square analysis using a 2 x 2 table of proportions for frequencies of high or normal scores and successful or failing families. The hypotheses and the results of each are as follows:

Hypothesis 1 stated that there is no significant difference between the frequencies with which successful and failing families score 70 or above on Scale 1 (Hypochondriasis). No significant relationship was found for Scale 1.

Hypothesis 2 stated that there is no significant difference between the frequencies with which successful and failing families score 70 or above on Scale 2 (Depression). No significant relationship was found for Scale 2.

Hypothesis 3 stated that there is no significant difference between the frequencies with which successful and failing families score 70 or above on Scale 3 (Hysteria). No significant relationship was found for Scale 3.

Hypothesis 4 stated that there is a significant difference between the frequencies with which successful and failing families score 70 or above on Scale 4 (Psychopathic Deviancy). No significant relationship was found for Scale 4.

Hypothesis 5 stated that there is no significant difference between the frequencies with which successful and failing families score 70 or above on Scale 5 (Masculinity-Femininity). No significant relationship was found for Scale 5.

Hypothesis 6 stated that there is a significant difference between the frequencies with which successful and failing families score 70 or above on Scale 6 (Paranoia). No significant relationship was found for Scale 6.

Hypothesis 7 stated that there is a significant difference between the frequencies with which successful and failing families score 70 or above on Scale 7 (Psychasthenia). No significant relationship was found for Scale 7.

Hypothesis 8 stated that there is a significant difference between the frequencies with which successful and failing families score 70 or above on Scale 8 (Schizophrenia). No significant relationship was found for Scale 8.

Hypothesis 9 stated that there is a significant difference between the frequencies with which successful and failing families score 70 or above on Scale 9 (Mania). No significant relationship was found for Scale 9.

Hypothesis 10 stated that there is no significant difference between the frequencies with which successful and failing families score 70 or above on Scale 0 (Social Introversion). No significant relationship was found for Scale 0.

Since frequencies of high scores did not show a significant relationship with successful and failing families for any MMPI scale, the data were analyzed further to see if any other variable might be useful in evaluating success or failure. Chi square analysis was applied to variables of race, enrollment classification, frequencies of husbands with high scores on each scale, frequencies of wives with high scores on each scale, frequencies of families with high scores on all scales combined, frequencies of families with no high scores on any scale, and frequencies of families with high scores on five

combinations of scales suggested as likely to predict failure by a consulting clinical psychologist. Enrollment classification was the only variable which showed a significant relationship to success or failure.

It can be said that the seasonal farmworker families are more likely to succeed in meeting Training Center objectives while migrant families are more likely to fail in meeting Training Center objectives. The need for MSFA staff to work more closely with migrant families to discover and overcome obstacles to success is clearly indicated. This finding was also interpreted to mean that migrants and seasonal farmworkers are not a homogeneous group for the purpose of studying MMPI scores in relation to Training Center achievement. Future research should control for this factor.

A unique method of pairing the MMPI profiles of married couples to determine a high or normal family score was employed in the present study. Support for the use of this method was taken from the literature which indicated a correlation between parental MMPIs and the pathological behavior of their children. Further research is needed to determine the validity of using paired MMPI profiles. If the use of a family profile can be validated, there would seem to be many uses of the MMPI to study a wider range of family variables.

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**APPENDIX A**

Chi Square Values for MMPI Scores and  
Racial Distribution by Scale

Scale	Number of Families with High Scores			Value of Chi Square	Level of Significance
	Black*	White**	Indian***		
1	2	0	1	1.28	ns
2	5	0	1	5.50	ns
3	1	0	0	3.79	ns
4	7	5	6	1.08	ns
5	0	1	1	1.73	ns
6	6	1	2	2.14	ns
7	2	0	2	2.26	ns
8	8	2	2	2.47	ns
9	6	6	4	0.48	ns
0	0	1	1	2.48	ns

\* N = 13

\*\* N = 8

\*\*\* N = 7

NOTE: The critical value of chi square for significance at the .05 level with 2 degrees of freedom is 5.99.

**APPENDIX B**

May 24, 1977

Mr. Kenneth Glover  
Migrant and Seasonal Farmworkers Association, Inc.

Dear Mr. Glover:

As you requested, I would like to indicate some Minnesota Multiphasic Personality Inventory patterns which I would predict might lead to failure patterns in clients at your facility. A failure pattern I would interpret as inability to complete your training program, inability to obtain employment, or inability to maintain employment once hired. It is my feeling that persons scoring very high scores (T score above 80) or high scores (T score 70-79) with the following patterns would be unlikely candidates for success in your program:

- F,4,8-the disaffiliation and sullen, distrustful anger of schizoid persons.
- 4,9,6-serious concern warranted in regard to aggressive behavior.
- 6,8 -definite elevations usually indicative of paranoid schizophrenia.
- 7,8 -when both scales are elevated above 75 and when 8 is relatively higher, this is very often an established schizophrenic psychosis.
- 8,9 -usually associated with a highly malignant psychopathological process.

You have already established a procedure for ruling out profiles which are invalid. The above patterns, then, should be considered valid. I hope this helps you both with your research and ultimately with the selection of candidates for training in your program.

If I can be of further help to you in this manner, please do not hesitate to call on me.

Sincerely,

North Carolina Practicing  
Psychologist

Chi Square Values for MMPI Scores and  
Training Center Achievement by Scale Combinations

Combination of Scales	Number of Families with High Scores		Value of Chi Square	Level of Significance
	Successful*	Failing**		
F, 4, 8	2	1	0.04	ns
4, 9, 6	0	1	2.59	ns
6, 8	6	2	0.07	ns
7, 8	3	0	1.34	ns
8, 9	2	2	1.05	ns

\* N = 20

\*\* N = 8

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THE RELATIONSHIP BETWEEN MMPI SCORES AND TRAINING CENTER  
ACHIEVEMENT OF MIGRANT AND SEASONAL FARMWORKER FAMILIES

by

Kenneth E. Glover

(ABSTRACT)

An investigation was made of the relationship between the achievement, designated as success or failure, of MSFA participant families and their MMPI scores obtained during basic orientation procedures. Subjects were twenty-eight families enrolled at the MSFA Training Center in vocational and educational classes for an average of 4.9 months.

For each family it was determined that both husband and wife had a valid MMPI profile. Husband and wife profiles were paired for each family and the family was considered to have scored high if either spouse scored 70 or above on a given scale. If official MSFA records indicated that the family completed training and at least one spouse remained employed for three months after placement, the family was defined as a success. A family who dropped out of training before completion or in which neither spouse remained employed for three months was defined as a failure.

A chi square analysis revealed no significant relationships between Training Center achievement and scores on any of the ten MMPI clinical scales. Therefore, it cannot be said that there is an association between MMPI scores and Training Center achievement.

Another finding of this study was that families classified as migrants are significantly less likely to be successful than are families classified as seasonal farmworkers. A need was perceived for further research investigating the differences between migrants and seasonal farmworkers and for further development and testing of paired spouse MMPI profiles as an approach to measuring family characteristics.