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AN INVESTIGATION OF THE MINNESOTA MULTIPHASIC PERSONALITY
INVENTORY-2 Pd SCALE AND Pd SUBSCALES IN
AFRICAN AMERICAN MALES

presented by

Francene Bellamy

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Counseling, Educational
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Education

Dr. Gloria S. Smith
Major professor

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AN INVESTIGATION OF THE MINNESOTA MULTIPHASIC PERSONALITY
INVENTORY-2 Pd SCALE AND Pd SUBSCALES IN
AFRICAN AMERICAN MALES

By

Francene Bellamy

A DISSERTATION

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ABSTRACT

AN INVESTIGATION OF THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY-2 Pd SCALE AND Pd SUBSCALES IN AFRICAN AMERICAN MALES

By

Francene Bellamy

The primary purpose of this investigation was to determine whether the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) Scale 4 (Psychopathic Deviate/Pd) validly discriminates levels of social deviance in African American males. A secondary purpose was to determine whether a relationship existed between selected variables and group status of "normal" subjects (those enrolled in a midwestern university) or "antisocial" (incarcerated) subjects.

The MMPI-2 was used to measure social deviance and overall personality functioning of the two groups. A questionnaire developed by the researcher was used to gather demographic information.

Results were analyzed using the t -test statistic, regression analysis, and analysis of variance. The two groups did not differ significantly in demographics. However, the college group differed significantly from the incarcerated group in educational level.

The data demonstrated the predictive validity of the MMPI-2 in this study. The incarcerated group had significantly higher scores on the Pd (Psychopathic Deviate) scale than the control group ($t = 3.33$, $p = .0014$). Pd Subscales 4 and 5 (Social Alienation and Self-Alienation, respectively) yielded statistically significant results, with the incarcerated group scoring significantly higher than the control group.

Post-hoc analysis revealed that past gang involvement did not affect Pd scale scores. However, among the control group, former gang members scored significantly higher on Pd Subscales 4 (Social Alienation) and 5 (Self-Alienation).

It was concluded that the MMPI-2 Pd scale validly differentiated levels of social deviance among African American males on the group level. However, caution must be used when interpreting individual scores.

Dedicated to
Vanessa Bellamy
1952-1972

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CHAPTER I

INTRODUCTION

General Overview

Reports indicate that young African American males have a greater chance of ending up in jail than in college. According to Gibbs (1988), up to 15% of all African American males will spend some time in an adult prison, whereas 2% to 3% of white males are expected to do so. The U.S. Department of Justice (1990) reported that although African American males are approximately 6% of the population, they constitute more than 42% of state inmates and more than 31% of the federal inmate population. Given these statistics, it becomes imperative that social scientists as well as researchers from other disciplines investigate and develop ways to prevent this phenomenon.

Any number of theories and/or aspects of this issue warrant investigation, including but not limited to the use of personality tests to support beliefs about certain groups. In 1975, Elion and Megargee conducted a study on young male students enrolled in a rural college between the ages of 18 and 21 to determine whether or not the Minnesota Multiphasic Personality Inventory (MMPI-1) Psychopathic Deviate (Pd) scale was valid for African American males. Their results showed that the instrument did discriminate levels of social deviance

among young Black males. Although Elion and Megargee concluded that the MMPI Pd scale had predictive and concurrent validity in a sample of African American males, they cautioned against its unrestrained use. In addition, they recommended further cross-validation to include older African American males and females.

This study somewhat replicated Elion and Megargee's study. It expanded on their work to include subjects from two urban, midwestern settings and selected background variables that were not investigated earlier. More important, this study was designed to test the validity of the Pd scale for the updated and restandardized MMPI-2. No recent studies have specifically examined the Pd scale with special attention to "within race" group differences.

Purpose of the Study

The researcher's primary purpose in this investigation was to determine whether the Minnesota Multiphasic Personality Inventory/2 (MMPI-2) Scale 4 (Psychopathic Deviate/Pd) scale validly discriminates levels of intraracial social deviance in African American males. A secondary purpose was to determine whether a relationship exists between selected variables (e.g., age, type of offense, and sociodemographic data) and group status among African American males enrolled in a midwestern college and those who are incarcerated in a midwestern prison.

The researcher's objectives were to: (a) review studies that have identified discriminant measures between an "antisocial" group of subjects and

a "normal" (socially accepted) group of subjects relative to personality variables; (b) examine MMPI research comparing racial-group differences, and (c) assess the validity of the MMPI-2 Pd scale relative to evaluating within-group differences among African American males.

The aim of this investigation was to generate information that may be helpful in evaluating the effectiveness of the MMPI-2 as being valid for assessing intraracial personality differences as manifested by African American males who are in prison and African American males who are enrolled in college.

Statement of the Problem

The MMPI is perhaps the most popular and most researched instrument for evaluating psychological dysfunction (Dahlstrom, Lachor, & Dahlstrom, 1986). More than 10,000 studies have been published (Graham, 1990). As a result, the MMPI has been widely used to evaluate minorities. However, the problem has been that much of the literature on the MMPI relative to minorities in general, and African American males specifically, has focused on the differences between a particular ethnic group and their White counterparts. This has led to a "deficit model" in portraying African Americans.

According to Jones (1978), minority status or ethnicity has been found to be an important source of variation in assessment results and should be taken into consideration when assessing personality characteristics. Williams (1974) raised the issue of white-middle-class-biased cultural orientation to the test items' correct responses, which determine "normal" behavior.

Is the MMPI-2 a discriminator of antisocial tendencies in African American males? Questions about the validity of the MMPI used to evaluate intraracial social and antisocial behavior among two groups of African American males have been raised. Therefore, this was the problem area to be investigated.

Hypotheses

The following hypotheses were formulated for this study:

Hypothesis 1: There will be differences in the mean MMPI-2 Pd scale scores between the incarcerated sample and the college sample. Specifically, the MMPI-2 Pd scale scores of the incarcerated sample will be higher than those of the college sample.

Hypothesis 2: There will be differences in the mean MMPI-2 clinical scale elevations between the incarcerated sample and the college sample. Specifically, the MMPI-2 Pd scale score of the incarcerated sample will be higher than that of the college sample.

Hypothesis 3: There will be differences in the MMPI-2 Harris-Lingoes Pd subscale scores between the incarcerated sample and the college sample. Specifically, MMPI-2 Pd subscale scores 1 through 5 will be higher for the incarcerated sample than for the college sample.

Hypothesis 4: Within the incarcerated sample, there will be differences in the MMPI-2 Pd scale scores of those reporting being charged with violent crimes compared to those being charged with nonviolent crimes. Specifically, the Pd scale scores for those being charged with violent crimes will be higher than the scores for those being charged with nonviolent crimes.

Hypothesis 5: There will be a positive relationship between the MMPI-2 Pd scale scores of both groups and self-reported criminal activity.

Hypothesis 6: There will be a negative relationship between age and MMPI-2 Pd scale scores in both the incarcerated sample and the college sample.

Hypothesis 7: Repeat offenders will have higher Pd scale scores and Harris-Lingoes Pd subscale scores than will first-time offenders.

Hypothesis 8: There will be differences on the MMPI-2 MacAndrews Alcoholism Revised (MAC-R) subscale scores between the incarcerated sample and the college sample. Specifically, the MAC-R subscale scores will be higher for the incarcerated sample than for the college sample.

Hypothesis 9: There will be a positive relationship between MAC-R subscale scores and self-reported alcohol and drug use in both the incarcerated sample and the college sample.

Hypothesis 10: There will be a negative relationship between socioeconomic status (SES) and MMPI-2 Pd scale scores in both the incarcerated sample and the college sample.

Definition of Terms

The following terms are defined in the context in which they are used throughout the study:

Adult male offender: African American male, aged 21 to 41, able to read at the eighth-grade level, sentenced to no less than 6 months, and not a selective-service violator; also referred to as an inmate, an incarcerated male, or a prisoner.

African American: Person of African heritage belonging to a dark-skinned race; is used interchangeably with Black American.

Antisocial: Those persons who have difficulty incorporating values and standards of society into their lives, who are often involved in criminal activities that may lead to incarceration.

College student: An African American male who is enrolled in a baccalaureate-degree program of study; the subject cannot be either a criminal or have a criminal record.

Detainee: An individual accused of a crime and awaiting sentencing.

Felony: The most serious category of crime, which carries more serious penalties and maximum sentencing of more than 1 year.

Gang: An organized group engaged in criminal and/or deviant activities.

MMPI-2: The Minnesota Multiphasic Personality Inventory-2 (originally the MMPI) is a self-administered, standardized personality inventory containing 567 true-false items. The MMPI-2 assesses major personality characteristics that reflect one's social and personal adjustment, which may be indicative of abnormal behavior.

Normal: A person who is without a formal psychiatric diagnosis, who is engaged in the socially accepted, "normal" activities of daily living.

Pd scale: One of the 10 clinical scales on the MMPI-2 (Scale 4), called the Psychopathic Deviate (Pd) scale. High scores on this scale reflect the tendency to be at odds with social standards, rebellious, hedonistic, with a history of difficulties in family life and problems with authority.

Profile: The pattern of MMPI scales in relation to each other.

Scale: One of 14 descriptive categories on the MMPI-2. There are 4 validity scales, which measure test-taking attitudes, and 10 clinical scales, which measure different personality dimensions.

Social: Those persons who have no difficulty incorporating values and standards of society into their lives; generally, they do not have a history of incarceration and are earning a living in traditional ways.

Significance of the Study

African American males currently are cited as the most at-risk group for incarceration, death by murder, and other acts of violence. Researchers often have tried to identify environmental as well as personality correlates contributing to this phenomenon. Currently, a controversial initiative by the federal government focuses on the identification of a biological basis for violence. However, this research is being challenged by the Association of Black Psychologists (Bennett, 1993). There is a history of such initiatives, which often use psychological assessment and diagnosis in a manner that creates and perpetuates negative images of people who have already been victimized by society. This has been true to some extent when comparative data on the MMPI are used to emphasize differences in scores obtained by Blacks and are subsequently compared to established norms for Whites.

Although the literature is replete with studies about the MMPI, there is a paucity of literature comparing differences within the same racial group and identifying positive attributes and correlates of minority-group status. Thus, examination and understanding of the revised MMPI-2 with respect to racial-group status is essential. If the findings from this study reveal that the MMPI-2 is a valid discriminator of antisocial tendencies in African American males, the data generated in the study will be useful to clinicians and practitioners in other disciplines in making more accurate diagnoses of clients and planning interventions. In addition, these findings may also reveal new information about

the psychological functioning and behavior of African American males in America.

Implications of the Study

This study has implications for treatment, research, and training. The potential outcomes will be helpful to practitioners in their decision making about the utility of the MMPI-2 with Black males. For example, if clinicians, therapists, and other service providers are confident of the instrument's validity and that African American males are accurately diagnosed, intervention can be planned on many levels. For example:

1. Cognitive approaches may be used to teach prosocial skills for at-risk groups at the elementary and high school levels.
2. Increased social support may be provided in the form of counseling, mentoring, job training, and so on, for delinquent youths and former inmates.
3. Systemic interventions that focus on prevention, including but not limited to multicultural and Afrocentric perspectives, may be helpful.

The findings from this study could also generate ideas for new research regarding behavioral and personality assessment for this specific population. In other words, the data may challenge some myths and stereotypes about African American males in general and those who are incarcerated in particular, that would suggest the need for more research regarding this group. In addition, the study may stimulate more investigation into the validity of the MMPI for other

racial groups. Finally, the study may encourage researchers to cross-validate other MMPI-2 scales. This may be particularly worthwhile for those scales that have consistently shown significant differences between ethnic groups.

Training issues may also emerge from the outcomes of this study. All too often, the curriculum ignores issues of cultural and ethnic diversity in relation to mental health. However, studies such as the present one will help increase students' knowledge and understanding of personality-testing bias and the larger social/political issues affecting the overrepresentation of African American males in prison.

Assumptions

The researcher made the following assumptions in conducting this study:

1. The MMPI-2 is the most frequently and widely used personality instrument.
2. The aim of the MMPI-2 personality assessment is to obtain accurate and useful statements about a person's current psychological functioning.
3. There is general agreement about the validity and reliability of the MMPI-2's theoretical and practical value of characterizing individuals' personalities.
4. The MMPI-2 personality assessment focuses on differences between a particular criterion group (i.e., antisocial, depressed, and so on) and "normals."

5. Minority-group status and ethnicity have been found to be important factors in evaluating personality assessment results.

6. There are sufficient questions about the validity and reliability of the MMPI-2's theoretical and practical value of characterizing intraracial personality characteristics of African Americans to warrant this investigation.

Limitations

Several limitations to this study have been identified. External validity and the issue of generalizability need to be approached cautiously. For example, African American males are underrepresented in the college population and overrepresented in the prison population. Thus, the findings may not be applicable to African American males in the general population. This argument may also hold true for female subjects. That is, the fact that this study was limited to investigating male subjects necessitates that the findings be limited to male subjects. More specifically, the findings were limited to African American males between the ages of 21 and 41, from the two facilities surveyed. Therefore, one cannot assume that these subjects were representative of the African American male population at large.

In addition, threats to internal validity exist. For example, were there confounding variables that might have influenced the manner in which subjects completed the instruments. Differences in how the instruments were presented to the subjects might have affected their motivation and cooperation. Other factors also might have influenced how the subjects completed each instrument.

However, presenting each instrument with standardized instructions might have decreased variability.

Differences may exist in psychosocial functioning and adjustment. These differences may reflect preexisting distress related to either incarceration or college, which could invalidate the results. In addition, the psychometric properties of the instrument used in the research will need to be fully reviewed in terms of validity and reliability, as well as appropriateness for use with this population. These threats reflect the difficulty in measuring constructs such as personality in general and sociopathy in particular.

CHAPTER II

REVIEW OF THE LITERATURE

The researcher's purpose in this study was to determine whether the MMPI-2 Scale 4 validly discriminates levels of social deviance in African American males and to identify additional variables that distinguish a group of incarcerated subjects from a control group of college subjects. The review of literature in this chapter has been organized around the following topics:

1. Origin and correlates of the Minnesota Multiphasic Personality Inventory.
2. Restandardization of the MMPI (MMPI-2).
3. Development of the Psychopathic Deviate (Pd) scale (or Scale 4).
4. MMPI research in the areas (a) psychological assessment and personality functioning of African American males, (b) the criminal justice system and African American males, and (c) African American males enrolled in college.

The preceding topics are important to review for increased knowledge about the MMPI in general, and theoretical aspects of the literature related to both the deviant and normal subjects in this study.

The MMPI: Its Origins and Correlates

Originally, personality inventories were constructed on the basis of so-called face validity (Berelson & Steiner, 1964). Items on the inventories were included because they appeared to be valid and characteristic of certain personality traits. According to Berelson and Steiner, most personality inventory measurements were designed to yield scores that identified distinctive aspects of personality.

Face validity was not defined by quantitative study; rather, it appeared to be more reflective of one's impressions or interpretation of the test results (Greene, 1978). Hall and Lindzey (1970) pointed out that one of the major difficulties in the early history of personality measurement was placing greater reliance on face validity. They stated that many people were able to fake their answers because the corrected items presented were easily identifiable. For example, persons taking the test may be aware of the significance of a particular response to the tester and may mislead the tester by selecting the more socially acceptable personality response, thus obtaining a better score.

Work on the original MMPI began in the early 1930s, when its construction was motivated by the need for a practical, economical means of describing and predicting the behavior of psychiatric patients (Hathaway & McKinley, 1940). Greene (1978) noted that the most significant methodology advance to be found in the MMPI was the attempt on the part of its developers to measure tendencies

to respond to verbal and printed statements, rather than actual behavior, and to rely but little on assumptions of face validity.

The original MMPI was constructed and first published in 1943 by Starke Hathaway, Ph.D., and J. Charnley McKinley, M.D., in Minnesota. It was developed to provide a more efficient way of arriving at appropriate diagnoses (Graham, 1987). The instrument was used primarily for clinical psychological testing and diagnosis. At present, clinicians place less emphasis on diagnostic labels resulting from the test; rather, they identify behavioral correlates of high and low scale scores. The MMPI is used to generate descriptions of and inferences about individuals (Graham, 1987).

The MMPI has 14 scored scales: 10 clinical scales that measure different personality dimensions and 4 validity scales that measure test-taking attitudes that could influence the validity of the scores on the clinical scales. The items comprising the 10 clinical scales were selected from an initial pool of more than 1,000 possible items through empirical item analyses in which responses of a carefully clinically defined group (i.e., depressed, hysterical, paranoid, schizophrenic, psychopathic deviate, and so on) were contrasted with the typical responses of a normal population. Those items that consistently discriminated the clinical sample from the normative group were selected for the scale, even when the content of the item did not bear any obvious relationship to the clinical syndrome (Graham, 1987).

When discussing ethnic- and racial-group differences in scoring on the MMPI, much controversy has focused on the fact that the normative group used to establish "normal" criteria, as stated above, was selected from relatives and visitors of patients in the University of Minnesota hospitals. The argument here was that this group could not begin to necessarily represent the racial and ethnic diversity of the majority of test-takers. As a result, the MMPI was revised and is currently known as the MMPI-2.

MMPI-1 Restandardized (MMPI-2)

The original MMPI instrument had not been revised since its development in 1943. The extensive restandardization project to revise and update the MMPI was completed in 1989. The primary goals of the revision were to (a) collect a contemporary normative sample that would be more representative of the general population than the original sample and (b) modernize the content and language of the test items (Graham, 1990).

In an attempt to counter criticism regarding the original MMPI normative group, Graham (1990) stated that the normative sample for the MMPI-2 was representative of the general population in the United States. Namely, the sample included a racial composition proportionate to each racial group in the United States. Also, approximately equal numbers of males and females were included in the sample. However, the median income of this new normative group was \$30,000 to \$35,000 for males and \$20,000 to \$25,000 for females.

A criticism of the new normative group is that higher educational levels seem overrepresented in the sample (Graham, 1990). Given the lower SES of certain minority groups in this country, the new sample may not necessarily be representative of African Americans, Hispanics, and other ethnic minority groups.

Although major revisions of the existing MMPI clinical and validity scales were not done, test items found to be objectionable were either changed or deleted (Graham, 1990). Graham stated that, overall, "improvements in the MMPI-2 include a more contemporary and representative standardization sample, updated and improved items, deletion of objectionable items, and some new scales" (p. 13).

Butcher, Dahlstrom, Graham, Tellegen, and Kaemmer (1989) reported that the revised form of the MMPI (MMPI-2) incorporates a number of changes that are outlined and detailed in its manual. For the purpose of this study, one such change involved the deletion of a small number of objectionable items from some of the validity, clinical, and supplemental scales. These items included content that over the years has been found to be objectionable to users of the MMPI (e.g., religious items, racial and sexist items, items about digestive and renal changes, and so on). Ben-Porath and Butcher (1989) pointed out that obsolete language was updated and items were rewritten to make the test more readable and understandable.

The revised MMPI-2 and manual were published in August 1989. As Butcher et al. (1989) pointed out, a major change in the revisions involved the

development of new norms for all of the scales and a new type of T-score for the eight clinical scales. Based on a national-census-matched sample of 2,600 males and females, the new norms were found to have an attenuating effect on MMPI-2 T-scores so that the restandardization committee recommended lowering the criterion for establishing interpretive evaluation in a scale from a T-score of 70 to one of 65 (Ben-Porath & Butcher, 1989).

In their study, Ben-Porath and Butcher (1989) demonstrated "the psychometric stability of the 68 rewritten MMPI-2 items by comparing their contribution to the scales on which they are scored to that of the originally worded items" (p. 345). The study was designed to evaluate the effect of other changes introduced in the MMPI-2 on the stability of the 13 basic scales and 8 supplemental scales that were retained in the MMPI-2.

Other researchers have made comparisons between the MMPI and the MMPI-2, and their results have been contradictory. Blake, Penk, Mori, and Kleespies (1992) reported no differences between the MMPI and the MMPI-2. Butcher, Graham, Dahlstrom, and Bowman (1990) found that mean score differences on the validity and clinical scales were within 1 to 3 T-score points. However, Ward (1991) compared raw scores on the MMPI and MMPI-2 for both males and females and found conflicting results. He found small differences in profile elevations and shape for females, but MMPI scores for males were 5 to 15 points higher than on the MMPI-2. Such discrepancies may create problems

for clinicians who are trying to make accurate interpretations. The literature regarding MMPI and MMPI-2 compatibility is still emerging.

The Psychopathic Deviate (Pd) Scale 4

The Psychopathic Deviate (Pd) scale or Scale 4 comprises 50 items designed to assess social maladjustment and the diagnosis of antisocial personality (Elion & Magargee, 1975; Graham, 1987; Greene, 1978; McKinley & Hathaway, 1944; Walters, 1986; Woodward, 1990). McKinley and Hathaway called this scale psychopathic deviate to indicate that it was not expected to differentiate all cases of psychopathic personality. Rather, Scale 4 could identify about one-half or more of the clients diagnosed as psychopathic personality if they obtained a T-score of 70 or above.

Greene (1978) stated that the Pd Scale 4 was constructed empirically using a criterion group of young persons primarily between the ages of 17 and 22, diagnosed as psychopathic personality, asocial and amoral type, who were referred for testing by the courts because of their delinquent activities.

A high Scale 4 score indicates a person who:

1. Has difficulty in incorporating values and standards of society.
2. Engages in asocial or antisocial behavior, such as (a) lying, cheating, stealing; (b) sexual acting out; and/or (c) excessive use of alcohol and/or drugs.
3. Is rebellious toward authority figures.
4. Has stormy family relationships.

5. Blames parents for his/her problems.
6. Has a history of underachievement in school.
7. Has a poor work history.
8. Experiences marital problems.
9. Is impulsive; strives for immediate gratification of impulses.
10. Does not plan well.
11. Acts without considering consequences of actions.
12. Is impatient; has limited tolerance for frustration.
13. Shows poor judgment; takes risks.
14. Does not profit from experience.
15. Is immature, childish.
16. Is narcissistic, self-centered, selfish, egocentric.
17. Is ostentatious, exhibitionistic.
18. Is insensitive to others.
19. Is interested in others in terms of how they can be used.
20. Is likeable; creates a good first impression.
21. Has shallow, superficial relationships.
22. Is unable to form warm attachments.
23. Is extroverted, outgoing.
24. Is talkative, active, adventurous, energetic, spontaneous.
25. Is intelligent, self-confident.
26. Has a wide range of interests.

27. Lacks definite goals.
28. Is hostile, aggressive.
29. Is sarcastic, cynical.
30. Is resentful, rebellious.
31. Acts out.
32. Is antagonistic, refractory.
33. Has aggressive outbursts, assaultive behavior.
34. Experiences little guilt over behavior.
35. May feign guilt and remorse when in trouble.
36. Is free from disabling anxiety, depression, and psychotic symptoms.
37. Is likely to receive a personality disorder diagnosis (antisocial personality or passive-aggressive personality).
38. Is prone to worry, dissatisfied.
39. Has an absence of deep emotional response.
40. Feels bored, empty.
41. Has a poor prognosis for change in psychotherapy or counseling.
42. Tends to blame others for his/her problems.
43. Uses intellectualization.
44. May agree to treatment to avoid jail or some other unpleasant experience but is likely to terminate prematurely (Graham, 1990, pp. 64-65).

According to Graham (1990), the MMPI-2 PD Scale 4 was developed to "identify patients diagnosed as psychopathic personality, asocial or amoral type" (p. 61). Subjects in the original criterion group consisted of cases from the University of Minnesota Hospital Neuropsychiatric Unit and inmates of a federal reformatory (Murphree, Karabelas, & Bryan, 1962). Graham criticized the original sample by pointing out that no major criminal types were included in the original study.

The MMPI Pd Scale and Racial Bias

Debate continues regarding the MMPI Pd scale and racial bias (Anderson & Holcomb, 1983; Elion & Megargee, 1975; Green & Kelley, 1988; Holland, 1979; Snyder, Kline, & Podany, 1985). An area of investigation for this study was the MMPI and its record of assessing social deviance and/or antisocial tendencies in African Americans. As Green and Kelly pointed out,

The test bias issue is especially salient with this population in that Black Americans and other individuals who have low socioeconomic status are over-represented in prison and detention facilities where psychological assessment, including the MMPI, is often used for prescribing placement and treatment. (p. 263)

Nevertheless, the debate continues. Scale 4 assesses behavior that includes delinquent acts such as lying, stealing, sexual promiscuity, excessive drinking, and so on. Items included in Scale 4 include family problems, delinquency, sexual problems, and difficulties with authorities (Graham, 1990). Thus, in general, one would expect that incarcerated offenders would be more likely to score higher (more deviant).

The Pd scale is a heterogeneous measure, rather than a measure of homogeneous characteristics (Harris & Lingo, 1968). The Pd scale has been found to be the primary discriminator of many types of dysfunctional behavior, such as abusive parenting (Paulson, Schwemer, & Bendel, 1976), and criminal behavior (Anderson & Holcomb, 1983). All of the researchers cited have made the assumption, implicitly or explicitly, that significant Pd elevations represent rebellion, authority conflict, and alienation with respect to family and society (Woodward, 1990).

MMPI Psychological Assessment and Personality Functioning of African American Males

The issue of psychological assessment and its relevance to African Americans and other minority groups has been greatly debated (Butcher, Braswell, & Raney, 1983; Elion & Megargee, 1975; Green & Kelley, 1988; Holland, 1979; Jones & Korchin, 1982; Williams, 1974). Personality assessment in particular has been central in these debates. Issues such as cultural bias, norming, and validity have all been identified as potential sources for the inaccurate assessment and misdiagnosis of African Americans and other minorities. Williams reminded readers of a historical misuse of tests relative to Blacks. He pointed out that "representatives of the white middle class culture contributed to the bulk of the test items; white experts determined the correct responses and all white populations normalized them" (p. 37).

Williams and Mitchell (1991) further cautioned that, because testing in general is subjective, results most often do not accurately reflect the status of the examinee. Instead, they described testing as a "game" in which institutional racism is perpetuated, whereby the examinee becomes victimized by his/her participation in the process.

Dahlstrom et al. (1986) reported that the MMPI is perhaps the most frequently used instrument for evaluating psychological dysfunction. It is widely used to evaluate minorities. Jones (1978) pointed out that minority status and/or ethnicity have been found to be an important source of variation in assessment results and must be taken into consideration. Much of the literature on the MMPI relative to minorities in general, and African Americans in particular, has focused on the differences between a particular ethnic group and their White counterparts. A sampling of such studies has been compiled in Table 1.

Many of these researchers attempted to determine whether racial biases were intrinsic to the MMPI itself. Some researchers did find consistent Black-White differences on a number of scales. Given the results of their studies, they have often recommended that African American norms be developed for the MMPI. Other researchers have argued that racial differences on the MMPI are due to variables other than race, such as age, education, and socioeconomic status. However, there is much debate on this issue.

Table 1: Summary of Selected Studies Comparing Black-White Differences on the MMPI

Study	Sample	Comments
Rosenblatt, 1976	Inmates with similar education	Blacks scored higher on L, F, Pd, Sc, and Ma
Patalano, 1978	Black/White, M/F	Black M/F higher on L; White M/F higher on D, Hy, Pt, S
Sutker, Archer, & Allain, 1978	Black/White, M/F drug abusers	White M/F higher on F, D, Pa
McGill, 1980	Black/White female	No differences
Berelson, Marks, & May, 1982	Black/White, M/F psychiatric patients	Black M/F higher on F, Mf, Ma
Butcher, Braswell, & Raney, 1983	Black/White, M/F psychiatric patients matched for SES and occupation	Black M/F higher on F, Pa, Sc and Ma; White M/F higher on D, Mf
Holcomb, Adams, & Ponder, 1984	Black/White male prisoners	Black higher on K scale
Ingram, Marchioni, Hill, Cavaveo-Ramos, & McNeil, 1985	Black/White male prisoners	Black higher on L, F
Johnson & Brems, 1990	Black/White M/F psychiatric in-patients	No B/W differences
Robyak & Byers, 1990	Black/White male alcoholics	Black higher on L, F, K
Hutton, Miner, Blades, & Langford, 1992	Black/White male psychiatric in-patients	Black higher on Over-Controlled Hostility scale

Greene (1987) did an extensive review of the literature regarding the MMPI and ethnicity. He criticized most of the research and identified many methodological flaws in the studies. He concluded that any push for separate norms for different ethnic groups is premature.

Gynther (1989), who is probably the most prolific researcher on the MMPI and ethnic-group differences, concluded that many Black-White comparisons have led to contradictory results. However, he warned clinicians to use caution in interpreting results with Blacks. He also suggested using separate norms for Blacks, who tend consistently to score higher than Whites on specific MMPI scales.

Dana and Whatley (1991) examined group differences in the MMPI literature relevant to African Americans and pointed out that cultural variables exist in MMPI score results, and methodological issues such as defining race and socioeconomic status present problems in comparative data. They also pointed out that researcher bias is an important variable to consider when interpreting results. Thus, methodological error will always be present in comparative studies.

MMPI studies on prison populations often have compared Black-White differences as well (Holland, 1979; Rosenblatt, 1976). These and other studies have pointed to differences in scoring between the two groups, with African Americans generally scoring in a more pathological direction.

Megargee and Bohn (1979) classified criminal offenders and found them to be very diverse. They used the MMPI and found at least 10 different personality profiles. The majority of African American males fell into one of three groups. The first group tended to appear the least pathological on a variety of measures, and they were intellectually average. They were generally seen as "good" men who had been raised in bad environments, and they tended to have problems with chemical dependence.

The second group was antisocial, bitter, and of average to low intelligence. They had histories of childhood deviance and general contempt for authority. This group also had extensive problems with substance abuse. Their criminal behavior seemed to stem from anger and contempt for life in general.

The third group had the lowest level of intelligence and appeared to be the most pathological. They were emotionally unstable, and criminal behaviors seemed to be only a small aspect of their broader pattern of mental illness. Results indicated that they were much more homogeneous than the overall prison population. However, it was also noted that they had histories of more serious criminal behavior, drug abuse, and antisocial traits.

In another study, Elion and Megargee (1975) found within-race group differences. They found that African American prisoners had (a) higher Pd scale scores than African American "deprived" college students, (b) recidivists had higher Pd scores than African American first offenders, and (c) African American prisoners had higher Pd scores than White prisoners.

However, other researchers have suggested that there are other implications as to why African American prisoners may score differently than their White counterparts (Bell, 1973; Davis, 1976; Fitzpatrick, 1974). Dahlstrom and Gunther (1986) summarized these findings as follows:

Such studies document the black defendant's greater likelihood of being charged, brought to trial convicted and, then, given an active sentence rather than being considered for a suspended sentence or placement on probation. Thus, black and white individuals who appear in any prison cohort are not likely to be equally representative of the offenders in their ethnic group. (p. 28)

Whatever the reasons, there appear to be some differences on the MMPI when racial groups are compared. As Holland (1979) stated, "It is less problematic to demonstrate ethnic group differences than to interpret the findings for non-white groups" (p. 76).

Thus, the purpose of this study was to compare within-race differences on the MMPI-2, while controlling for certain demographic variables as well. The results could potentially yield greater predictive validity of the MMPI-2 when race is controlled.

MMPI Harris-Lingoes Subscales

Whereas Hathaway and McKinley used an empirical keying process in constructing the MMPI, item content has been found to add to MMPI interpretation (Graham, 1990). Harris and Lingoes (1968) developed subscales for Scales 2, 3, 4, 6, 8, and 9 on the MMPI. The purpose of subscales is to examine the content of items within each scale. Thus, "each of the Harris-

Lingoes subscales was constructed logically by examining the content of items within a standard clinical scale and grouping together items that seemed similar in content or were judged to reflect a single attitude or trait" (Graham, 1990, p. 108). The resulting subscales for each of the six MMPI scales were assessed to be more homogeneous than the parent scales.

Limited empirical research has been published regarding the Harris-Lingoes subscales. However, Panton (1959) compared the Harris-Lingoes subscale scores of Black and White prison inmates and found that Whites scored higher on Authority Problems. Blacks scored higher on Persecutory Ideas, Social Alienation, and Ego Inflation.

Gocka and Holloway (1963) correlated scores of psychiatric patients on the Harris subscales with other MMPI scales and demographic variables. Few significant correlations were found between Harris subscale scores and demographic variables.

In this study, the researcher examined the Harris-Lingoes subscale for the Pd scale only. The Pd scale has a total of five Harris-Lingoes subscales. The names of the subscales are as follows:

Pd 1 = Families Discord

Pd 2 = Authority Problems

Pd 3 = Social Imperturbability

Pd 4 = Social Alienation

Pd 5 = Self Alienation

MMPI Use in the Criminal Justice System
and African American Males

The United States is a country of diverse racial groups and a nation of immigrants. Yet it is well documented that African American males in the United States have a disproportionate rate of imprisonment than do Whites. Although the disproportionate number of imprisoned African American males is disturbing, it becomes even more startling when compared to the country of South Africa. Ely (1991), who reported on an extensive study conducted by the Sentencing Project, a Washington, D.C.-based prison reform group, showed that "overall, the United States incarcerates more people (426 per 100,000) than South Africa (333 per 100,000) and the Soviet Union (268 per 100,000" (p. 16).

The report highlighted other tragedies from the Project's findings. Of the African American male population of 14,625,000, the number of inmates is recorded at 454,724. That is 3.1% of the African American male population and four times more than the incarceration rates of Black males in South Africa. More specifically, the United States jails 3,109 per 100,000 African American males in the population, whereas South Africa jails 729 per 100,000 Black males (Ely, 1991, p. 16).

Some researchers have argued that using statistics to define the problem of crime among African American males is misleading (Gary, 1981; McNeely & Pope, 1981; Staples, 1976; Townsey, 1981). Staples found that the actual criminal rate in America is triple the rate officially reported if crime is defined as an act committed in violation of a law. He cited four kinds of crimes: (a) ordinary

crime (acts committed at some time by the majority of the population; (b) political crime (acts committed by public officials, parties, or interest groups); (c) corporate crime (acts committed by manufacturers, businesspeople, and so on); and (d) crimes of the underclass.

Crimes of the underclass represented the crimes for which people were most often arrested, prosecuted, convicted, and incarcerated. These crimes were most often against property or persons and usually involved money or drugs. African Americans, because of their overrepresentation in the lower class, may be overrepresented in arrests and convictions, not because they commit more crimes, but because society is biased in the crimes that are prosecuted.

Another theory about why African American males are overrepresented in prison, held by some mainstream researchers, is that Black males are violent and rebellious by nature (Mayas, 1977; Secord, 1958). This theory is reflected in newspaper reports and society in general. As one young African American male so poignantly stated, "When someone is Black and my size, they're a threat; when they're white and my size, they feel protected" (Morse, 1991, p. 10).

It has been reported that minorities receive differential treatment in the criminal justice system. Townsey (1981) noted that Blacks consistently received more severe sentences than their White counterparts. They spent more time in prison and/or jail and received the least adequate legal representation. Black men were also more likely to receive the death penalty when victims were White.

Lewis, Shanok, Cohen, Klingfeld, and Frisone (1980) reported that even among adolescent groups "in the lower socioeconomic sectors of the urban areas studied, violent, disturbed, black adolescents were incarcerated; [whereas] violent, disturbed white adolescents were hospitalized" (pp. 12-13). Thus, who goes to jail versus who goes to a psychiatric hospital is highly correlated with race. Lewis et al. continued by pointing out that correctional facilities are being asked to function as mental hospitals for the lower-socioeconomic-class Black population. For whatever reasons, large numbers of African American males are incarcerated; hence robbing the community and their families of valuable human resources.

Finally, there is a direct relationship between psychology and the criminal justice system. Hilliard (1991) wrote a classic paper describing the interplay of psychology and the criminal justice system, including jury selection, criminal responsibility, and prison reform. Although this paper was originally published in 1976, its salient themes still exist today. Hilliard pointed out how the disproportionate number of incarcerated Black males are subsequently psychologically evaluated, tried, and sentenced by the White majority. Such a phenomenon was evident in the 1992 criminal trial of Rodney King in Los Angeles, California.

Hilliard (1991) discussed the need for psychologists to challenge the criminal justice system and to collect empirical evidence of racism and injustice.

Unfortunately, the MMPI and other psychological tests are all too often used in a manner that may inject more racism and bias into the process.

Sociological View of Criminal Activity

Some researchers have taken a broad, sociological approach to explain why more African American males are in prison than White males and other minorities, and why fewer African American males enroll in college. Moynihan (1967) associated criminal activity and high incarceration rates of African American males with family structure. Megargee and Bohn (1979) and Daniels (1986) correlated low social class, economics, and achievement to the high incidence of African American males who are imprisoned. Studies by Cazenave (1981) and Gary (1981) revealed a relationship between racism and discrimination and criminal activity and disproportionately high arrest rates and incarceration of African American males. Although these researchers have recognized minority-group issues, they have not compared and accounted for individual differences within the African American male population.

Other researchers have taken a more individualistic perspective. For example, Megargee and Bohn (1979) and Jessor and Jessor (1977) investigated individuals' personalities. Rokeach (1973) was interested in examining values, whereas Jessor, Chase, and Donovan (1980) and Detting and Beauvias (1986) were interested in the association between peer influence and criminal activity. Such investigators often have compared African Americans to Whites, yet rarely have they examined intraracial, within-group differences of African Americans.

Regardless of which view one prefers, the fact that such disproportionate numbers of African American males are incarcerated has serious implications for the African American community and society as a whole. For example, inmates are not available to parent and support their offspring. They are not available to make significant contributions to society, whether it is in the form of gainful employment or simply as taxpayers. In addition, once these individuals are incarcerated, the rate of recidivism is rather high, thus setting the pattern for a long cycle of incarceration-release-incarceration. Such a pattern removes Black males from the normative roles of being bread-winner, parent, and protector of the family (Hare & Costenell, 1985).

While incarcerated, offenders are given personality tests and other assessment instruments in an attempt to diagnose the nature of their disorders and/or reasons for their inability to conform to societal rules. The MMPI-2 is widely used in criminal justice settings for such purposes. Holland (1979) pointed out that the MMPI is "used on connection with evaluations regarding psychiatric diagnoses, suitability for probation, readiness for release on parole, and placement in various institutions and institutional programs" (p;. 72). Thus, the validity and accuracy of this instrument in discriminating between groups in general and African Americans in particular is crucial.

The MMPI and African American Males
Enrolled in College

Since its development in the early 1940s, the MMPI has been used extensively in college settings for personality research and for clinical assessment in student counseling centers, with similar responses across college settings (Butcher et al., 1990). Although specific research on ethnic-, racial-, and intraracial-group differences of African American males enrolled in college using the MMPI has been sparse, some studies of college populations have reported ethnic-group-membership differences and social-class differences (Butcher, Ball, and Ray, 1964), as well as cross-cultural differences (Butcher & Pancheri, 1976).

Brown (1948) conducted one of the earliest studies using the MMPI to examine similarities and differences in college populations. His findings revealed that responses on college students' profiles were similar in terms of configuration and levels of scale elevation. Butcher et al. (1990) reported that there was a consistent finding that college students' mean profiles fell in the range of about 1 to 1.5 standard deviation above the normative sample mean. Fishburne and Parkinson (1984) identified several factors that may account for these consistent mean differences. They pointed out that one reason normal groups produce generally higher mean profiles than the standard groups on the MMPI is that the way in which the test is administered today has changed over time from the way in which it was first used by the test authors in establishing the original MMPI norms. For example, in the original normative study, subjects were allowed to omit items on the instrument, whereas today, subjects are encouraged to

encouraged to respond to all of the items. Consequently, subjects who have to respond to all of the items on the instrument are likely to select more items that are included on the validity and clinical scales.

Butcher et al. (1990) conducted an investigation to evaluate the comparability of the MMPI-2 scales for college populations and the newly revised nationally representative normative sample and to determine whether a new set of special norms needed to be developed for personality assessment in college settings. The subjects in their study represented a heterogeneous sample of college students from diverse regions of the United States. The sample comprised 515 male and 797 female college students from three of the top 10 universities and the U.S. Naval Academy. The ethnic-group composition of the sample was 84.7% White, 7.5% Black, 2.8% American Indian, 2.7% Asian, and 2.1% Other.

Butcher et al.'s findings indicated that the mean raw scores and the mean profile for male and female college students on the MMPI-2 were quite similar to those for the subjects in the MMPI-2 restandardization sample in terms of scale elevation on most validity and clinical scales. They concluded that the MMPI-2 norms, which are based on a more nationally representative sample than the original MMPI norms, appear to be relevant and appropriate for college students when responding to the same instructions for administering and taking the test.

Chapter Summary

An underlying issue in this study was determining whether the revised MMPI-2 is racially biased with respect to its ability to discriminate levels of social deviance in African American males. Early research regarding the MMPI and ethnicity indicated that there were major differences in scores when comparisons were made between Black and White subjects. These conclusions may have been accurate for the times, but later studies showed only slight differences between Blacks and Whites on the MMPI.

As a result of such contradictory results, it is not surprising that the MMPI is still the topic of much research and debate. Much of the debate regarding the MMPI and racial bias has focused on methodological issues and whether "accurate" results were reported (Gynther Green, 1980; Pritchard & Rosenblatt, 1980). Other researchers have concluded that the MMPI is racially biased and therefore should not be used (Adebimpe, Gigandet, & Harris, 1979; Powell & Johnson, 1975). Recently, the focus has shifted to the issue of researcher bias in interpretation of results regarding racial- and/or ethnic-group differences (Dana & Whatley, 1991; Gynther, 1989) and comparing the results and utility of the MMPI-2 with those of the MMPI.

Finally, the differential treatment of Blacks within the criminal justice system has been documented. This has led to a disproportionate number of African American males being incarcerated. However, other researchers have expressed additional theories and correlates to explain this phenomenon.

Nevertheless, the MMPI often is used to evaluate offenders. Thus, it is important to consider issues of reliability, validity, and bias.

The MMPI was revised in 1989 and included a new normative group, which was roughly reflective of the population of the United States. This change may eliminate criticism regarding its appropriateness for diverse groups. However, it is not clear whether the revised MMPI-2 will end the debates regarding the issue of racial bias.

Although the Association of Black Psychologists recommended that a moratorium be imposed on psychological testing (Jackson, 1975), public outcry and protests from professional organizations regarding personality testing have not taken on the same fervor as debates regarding intelligence testing. Until such protests occur, questions regarding racial bias and personality testing in general and the MMPI in particular may not be completely resolved.

CHAPTER III

METHODOLOGY

The researcher's purpose in this study was to determine whether the Minnesota Multiphasic Personality Inventory 2 (MMPI-2) Scale 4 validly discriminates levels of intraracial social deviance in African American males. A secondary purpose was to determine whether a relationship exists between selected variables and group status of "normal" subjects (those enrolled in an urban midwestern university) and "antisocial" (incarcerated) subjects.

The selection of the MMPI-2 was this study's instrument of investigation was based on its extensive use in criminal justice settings and the numerous debates regarding its use among African Americans. Contained in this chapter is a detailed description of the research design and methods used during this investigation. Included in the chapter is a discussion of the following: (a) subjects, (b) instrumentation, (c) data collection, (d) hypotheses, (e) data analysis, (f) description of independent and dependent variables, and (g) potential limitations.

Subjects

Subjects in this investigation were divided into two groups. One group of subjects attended a large, urban, midwestern university. The second group of subjects were detainees in an urban, midwestern correctional facility. All subjects were African American males, between the ages of 21 and 41. The study sample consisted of 38 subjects in the college group and 41 subjects in the incarcerated group, yielding a total of 79.

College Sample

All subjects in the college sample were undergraduate students. A total of 42 subjects participated at the beginning of the study. The sample was later reduced to 38 subjects due to the elimination of four invalid MMPI-2 profiles. The four subjects who were excluded from the study were students who (a) were not full-time students, (b) were under 21 years of age, and (c) had a history of incarceration.

The college sample was divided almost equally into sophomore, junior, and senior-class status. They were most likely to be living with parents or spouses. Approximately 66% fell within these groups. Approximately 68% of the sample indicated that they were employed, and approximately 73% earned less than \$15,000 per year. According to data from the Office of Research and Planning, students attending this university are generally from the lower socioeconomic levels and are the first generation to attend college. In addition,

approximately 75% are receiving some form of college financial aid. Finally, these subjects' ages ranged from 21 to 41, with a mean age of 27.7 years.

Prison Sample

All subjects in the incarcerated group were detainees in a large midwestern correctional facility. The detainees had been charged with a range of felonies including murder, armed robbery, drug possession, and aggravated sexual assault. A total of 44 subjects participated at the beginning of the study. Three of the MMPI profiles had to be eliminated as invalid, yielding a total of 41 subjects. Subjects who were excluded from the study were inmates who (a) were housed in the psychiatric unit, (b) had less than some high school education, and (c) were presented as threats to security procedures.

Before incarceration, the subjects were most likely to have lived with parents or spouses. Approximately 55% fell within these groups. Approximately 73% indicated that they were employed before incarceration, and 70% earned less than \$20,000 annually. Of the sample, 73% were born in Chicago, and 30% had attended some college. In terms of criminal charges, the incarcerated group were facing a variety of felony charges. This sample ranged in age from 21 to 40 years, with a mean age of 28.2 years.

Instrumentation

This section contains a description of the instruments used in this study: (a) the Minnesota Multiphasic Personality Inventory 2, (b) the Harris-Lingoes Pd

subscales, and (c) a sociodemographic background questionnaire developed by the researcher.

Minnesota Multiphasic Personality Inventory-2

The MMPI-2 was described at length in Chapter II. It has been widely used in criminal justice settings, as well as in other clinical settings. Many researchers have compared the MMPI scores of Black samples with those of White samples, including prisoners and students (see Table 1). These authors frequently "demonstrated the existence of differences in component scores between various ethnic groups in the United States" (Dahlstrom, 1986, p. 189). However, there is still a paucity of data comparing "within" race differences on the MMPI. Thus, this study was an attempt to address this neglected area of research.

All subjects were administered the booklet form of the MMPI-2. Test profiles were hand scored, using specific scoring keys for each scale. Raw scores were then entered on each profile form to obtain a composite "profile" for each subject. Second, each profile was examined to determine its validity.

The first step in interpreting the validity of the MMPI-2 results must be an evaluation of the acceptability of the information reported, based on the "?" (Cannot Say), L, F, and K scales validity indicators and general profile of the results (Graham, 1990).

The "?" (Cannot Say) scale is the number of items omitted for any reason. Understandably, omitting items from the test would affect the results and bring

into question the validity of the protocol. Therefore, Graham (1990) suggested that examiners question the validity of protocols with more than 10 items omitted.

The L (Lie) scale serves to assess the likelihood of the test-takers to lie when answering test items and to present themselves favorably. The F (Infrequency) scale is sensitive to individuals who are unwilling to cooperate with test instructions and possibly respond to test items in a random fashion (Hathaway & McKinley, 1989). The K (Correction) scale is the most complex of the validity indicators (Hathaway & McKinley, 1989). It is a more subtle index of examinees who attempt either to present themselves in a more favorable light or to exaggerate psychopathology and present themselves in an unfavorable manner (Graham, 1990).

Additional validity indicators included in the new MMPI-2 described by Graham (1990) include the Variable Response Inconsistency (VRIN) scale. The VRIN scale was developed to identify subjects who responded to the MMPI-2 items inconsistently and whose "resulting protocols therefore should not be interpreted" (Graham, 1990, p. 32).

A final validity scale developed for the MMPI-2 is the True Response Inconsistency (TRIN) scale. This scale was developed to identify subjects who either gave true responses to items indiscriminately, or false responses to items indiscriminately. Both of these scales are best scored by computer and are still in experimental stages. For these reasons, these two scales were not used as validity indicators in the present study.

In assessing profile validity, one has to be concerned with the possibility of subjects responding in a "fake-bad," "fake-good," or random manner. In addition, if subjects did not answer a number of test items, the "?" (Cannot Say) scale could potentially cause certain profiles to be invalid. Finally, although the issue of racial-group differences in scores on specific scales has been discussed in the literature (Dahlstrom et al., 1986), data have not been published comparing Black and White differences on the MMPI-2. Because the MMPI-2 normative sample was more representative of the general population in the United States and included ethnic-minority groups, the standard validity indicators were used in this study.

"Fake-bad" profiles are examined with respect to several variables. Graham (1990) suggested that an elevated F scale T-score of 100+, and Scales 6 and 8 as the most elevated are indicative of a "fake-bad" profile. Both Gough (1950) and Meehle (1951) suggested that when the F-K raw score index is positive and greater than 9, it should be considered a "fake-bad" profile. Carson (1969) suggested that a cutoff score of +11 is a better indicator of "fake-bad" profiles. Graham (1990) suggested that whenever the F scale raw score is greater than the K scale raw score, "faking-bad" should be considered. Four test profiles met all of the above rules and thus were identified as "fake-bad" and eliminated from this study.

Graham (1990) pointed out that "fake-good" profiles are usually identified by a V-shaped configuration on the L, F, and K scales. he continued to note that

the F scale \bar{I} -score will be in the 40 to 50 range, and most of the clinical scales will be in the 30 to 50 range, with 3, 5, and 9 the highest clinical scales. Graham (1990) also stated that individuals from higher socioeconomic backgrounds tend to score higher on the K scale than those from lower socioeconomic groups, and that a \bar{I} -score of 60 to 70 in higher SES subjects does not necessarily imply a "faking-good" test attitude. Finally, Graham (1990) and Dahlstrom et al. (1986) pointed out that using an absolute value of the F-K index as a measure of profile validity is less appropriate for the "fake-good" category.

Validity of profiles was also evaluated on the basis of random response criteria suggested by Graham (1990). According to Graham, the F scale \bar{I} -score is very elevated, the K scale is at or near 50, and the L scale is moderately elevated. The random response profile also typically has a spike on scale 8. The "all true" profile will show an F score greater than 120, and the L and K scores will be below the mean. "All false" profiles will have all three scales elevated, and the main clinical scales will have a negative slope. Three profiles in this study were eliminated because of a random response style. The MMPI-2 scales and scale descriptors can be found in Appendix G.

Harris-Lingoes Pd Subscales for the MMPI

A description of the Harris-Lingoes Pd subscales was provided in Chapter II. As indicated, these subscale scores are derived from specific questions on the MMPI. Thus, the Harris-Lingoes Pd subscales are obtained from a single

administration of the MMPI. Norms for the Harris and Lingo's subscales are based on the restandardized contemporary national normative group.

Information derived from the Harris-Lingo's subscales is especially helpful in two circumstances. Namely, Harris-Lingo's subscales can help explain why a subject received an elevated score on a clinical scale when it was not expected and incongruent with the person's history. Second, the Harris-Lingo's subscales are useful in interpreting scores that are marginally elevated, where the T-score range is 60 to 65 (Graham, 1990). In this study, the Harris-Lingo's subscales shed light on interpreting Pd scale elevations in the moderate range by identifying specific patterns of endorsements of test items. Thus, the Harris-Lingo's Pd subscale group items based on content that yield five subscales as noted by Hathaway and McKinley (1989) are as follows:

Pd 1 subscale = familial discord

Pd 2 subscale = authority problems

Pd 3 subscale = social imperturbability

Pd 4 subscale = social alienation

Pd 5 subscale = self-alienation

Generally, Harris-Lingo's subscale T-scores of greater than 65 are considered high, and those less than 40 are considered low.

Background Sociodemographic Questionnaire

This researcher developed a sociodemographic questionnaire to obtain additional background information for each subject. This information was used

for descriptive purposes and hypothesis testing. The types of items on the questionnaire included income, place of birth, employment, educational level, living arrangement, previous criminal activity, and alcohol and/or drug use.

Data Collection

Before the collection of data at both sites, meetings were held with the respective administrators to explain the significance of the study and to seek approval. Permission was given to recruit participants at both sites. Thus, MMPI and demographic data were collected directly from each subject.

The college sample was recruited through advertisements in the school newspaper. Participants were then instructed on where to meet for additional information and follow-up. If participants gave a verbal agreement to participate in this study, an Informing and Participation Request Form (Appendix B) and a Departmental Research Form (Appendix C) were given to them.

The questionnaire and MMPI-2 were administered in small groups. Each administration was accompanied by an explanation of the purpose of the study and instructions on how to answer all items. These instructions emphasized that all information collected was to be coded for confidentiality so that no participants could be identified. At the end of data collection, each subject was paid \$5 for participating in the study.

The prison sample was recruited from the general prison population by prison personnel. Those prisoners who expressed interest in participating in the study were allowed to meet with the researcher in small groups to obtain specific

information regarding the nature of the study. At this time, subjects who agreed to participate in the study were given an Informing and Participation Request Form (Appendix B) and a Departmental Research Form (Appendix C). Those subjects who decided not to participate in the study were escorted back to their respective divisions by prison personnel. Several subjects refused to participate in the study for fear that the information obtained might be used against them in their pending cases.

The background sociodemographic questionnaire and MMPI-2 were administered in small groups. Each administration followed the same format for data collection. An explanation of the purpose of the study and instructions on how to answer all items on each instrument was given. In addition, the researcher emphasized that all information collected would be coded for confidentiality so that no participant could be identified. It was further explained that the information collected would not be used in any detainee's defense in any way.

Prison policy forbids giving currency to inmates. Thus, at the end of data collection, each participant completed a self-addressed envelope to be mailed by the researcher, along with a \$5 money order for their participation in the study.

Statistical Hypotheses

The research hypotheses tested in this study were as follows:

Hypothesis 1: There will be differences in the mean MMPI-2 Pd scale scores between the incarcerated sample and the college sample. Specifically, the MMPI-2 Pd scale scores of the incarcerated sample will be higher than those of the college sample.

Hypothesis 2: There will be differences in the mean MMPI-2 clinical scale elevations between the incarcerated sample and the college sample. Specifically, the MMPI-2 Pd scale score of the incarcerated sample will be higher than that of the college sample.

Hypothesis 3: There will be differences in the MMPI-2 Harris-Lingoes Pd subscale scores between the incarcerated sample and the college sample. Specifically, MMPI-2 Pd subscale scores 1 through 5 will be higher for the incarcerated sample than for the college sample.

Hypothesis 4: Within the incarcerated sample, there will be differences in the MMPI-2 Pd scale scores of those reporting being charged with violent crimes compared to those being charged with nonviolent crimes. Specifically, the Pd scale scores for those being charged with violent crimes will be higher than the scores for those being charged with nonviolent crimes.

Hypothesis 5: There will be a positive relationship between the MMPI-2 Pd scale scores of both groups and self-reported criminal activity.

Hypothesis 6: There will be a negative relationship between age and MMPI-2 Pd scale scores in both the incarcerated sample and the college sample.

Hypothesis 7: Repeat offenders will have higher Pd scale scores and Harris-Lingoes Pd subscale scores than will first-time offenders.

Hypothesis 8: There will be differences on the MMPI-2 MacAndrews Alcoholism Revised (MAC-R) subscale scores between the incarcerated sample and the college sample. Specifically, the MAC-R subscale scores will be higher for the incarcerated sample than for the college sample.

Hypothesis 9: There will be a positive relationship between MAC-R subscale scores and self-reported alcohol and drug use in both the incarcerated sample and the college sample.

Hypothesis 10: There will be a negative relationship between socioeconomic status (SES) and MMPI-2 Pd scale scores within both the incarcerated sample and the college sample.

Data Analysis

The general design of this study was descriptive. The researcher's purpose in this study was to investigate whether the revised MMPI validly discriminated levels of social deviance in African American males, as measured by specific scales on the instrument. At the same time, the investigator examined background data that were potential predictor variables for distinguishing college students from prison inmates.

It was hoped that this research would generate new information regarding within-racial-group comparisons and shed more light on the issue of whether separate norms on the MMPI are necessary for specific groups. This is particularly important in light of the fact that the MMPI-2 was restandardized on a contemporary population that included a racial make-up reflective of the population in the United States.

Statistical analyses used in this study were: (a) the t -test, (b) linear regression, and (c) analysis of variance. The t -test was chosen because it could test for differences between two populations and one quantified continuous variable. The linear regression statistic was chosen because it tests for both the direction of a relationship and the magnitude of change induced upon the dependent variable by an alteration of the independent variable. These analyses are described as follows:

1. The t -test was used to address (a) Hypotheses 1, 2, 3, 4, 7, and 8; (b) differences between the college sample and the incarcerated sample on the MMPI-2 main scales; and (c) differences within the incarcerated sample.
2. Pearson correlation and linear regression were used to address Hypotheses 5, 6, 9, and 10.

Descriptive statistics were performed on all variables identified in this study; the results of these analyses are presented in Chapter IV. All variables were coded and entered into a personal computer, using the Minitab Statistical Software Release 7.0 for the IBM personal computer, to perform the necessary statistical procedures. The variables included in this study are described in the following section.

Variables

The variables included in the study were as follows:

Independent Variables

1. Group status--a categorical variable measured as normal (college subjects) or incarcerated (prison subjects).
2. Age--a continuous variable referring to the subjects' chronological age at the time they participated in this study, measured in number of years.
3. Educational level--a categorical variable measured as (a) some high school, (b) high school graduate or GED, (c) some college, (d) college graduate, or (e) graduate studies.

4. Income--a continuous variable referring to the annual income reported by subjects in this study.
5. Occupational status--a categorical variable measured as (a) employed, (b) unemployed, (c) self-employed, or (d) job title.
6. Living arrangement--a categorical variable measured as (a) living with parents, (b) living with spouse, (c) living with relatives, (d) living with friends, (e) living alone, or (f) other.
7. Type of offense--a categorical variable measured as (a) violent crime or (b) nonviolent crime.

Dependent Variables

1. MMPI-2 main clinical scale scores--continuous variables; refers to the eight main clinical scale scores that make up the bulk of the MMPI profile, measured in T-score units.
2. MMPI-2 Pd subscale scores--continuous variables; refers to scale 4 on the MMPI-2, measured in T-score units.
3. MMPI-2 Harris-Lingoes Pd subscale scores--continuous variables; refers to the five subscales of the Pd clinical scale.
4. MAC-R scale score--a continuous variable, measured in T-score units.
5. Alcohol/drug use--a categorical variable measured as (a) alcohol use, (b) drug use, or (c) none.

Potential Limitations

Certain logistical considerations in both sites precluded the use of random probability sampling. The sampling procedures that were used facilitated the collection of information from a relatively similar population, at two different sites. Because of the limitations imposed by these sampling procedures, the data reported herein may have limited generalizability.

In addition, African American males are underrepresented in the college population and overrepresented in the prison population. Thus, the findings may not be applicable to African American males in the general population. Although these limitations exist, the aim of this study was to assess whether one of the most widely used personality measures adequately discriminates levels of social deviance in African American males. Clinically, such information would be useful and necessary for accurate assessment and treatment of this population.

CHAPTER IV

RESULTS OF THE DATA ANALYSIS

The central task of this study was to determine whether the MMPI-2 validly discriminates levels of social deviance in African Americans. A secondary purpose of this investigation was to determine the relationship between selected variables and group status of "normal" or "antisocial."

Analysis of the data was done through the use of Minitab Statistical Software, Release 7.0, for the IBM personal computer. The results of hypothesis testing are presented in this chapter. The data are organized into two sections: (a) demographic results and (b) results of hypothesis testing.

Demographic Results

A demographic profile of the subjects in this study is presented in Tables 2 through 9. The tables pertain to the following seven demographic items included in the questionnaire: age, educational level, income, living arrangement, employment status, place of birth, and number of dependents.

The obtained results suggest that the two groups were similar in many ways. The average subject in this study was approximately 28 years of age (Table 2). Although the college group have a slightly higher level of education

as compared to the incarcerated group (Table 3), the differences were not extreme. In looking at the means for educational level for the two groups, the college group mean fell into the category "some college," whereas the incarcerated group mean was "high school level" (Table 4). Thus, differences were not at the extreme ends of the scale, i.e., less than high school (level 0), versus college graduate (level 3) or advanced degree (level 4).

Table 2: Mean Age of the Subjects

Group	Mean Age	Std. Dev.
College ($n = 39$)	27.70	7.15
Incarcerated ($n = 41$)	28.23	5.36

Table 3: Educational Level of College and Incarcerated Subjects

Level	College ($n = 41$)		Incarcerated ($n = 39$)	
	n	%	n	%
Less than high school graduate	0	0	11	28
High school graduate/GED	2	5	16	41
Some college	32	78	10	26
College graduate	7	17	2	5
Advanced education	0	0	0	0

Table 4: T-Test for Educational Levels of the College and Incarcerated Subjects

Group	n	Mean	Std. Dev.
College	41	2.146	.52
Incarcerated	39	1.077	.87

Note: Statistically significant at $\alpha = .01$, $p = .000$.

Code for educational level:

0 = Less than high school graduate

1 = High school graduate/GED

2 = Some college

3 = College graduate

4 = Advanced education

There was no statistically significant difference between the two groups with regard to reported income (Table 5). This result was surprising, given that many subjects in the incarcerated group were involved in selling drugs. Also, college subjects were full-time students, many of whom were working at lower-level, unskilled jobs. Approximately 69% of the college group were employed. An equal number of the incarcerated group were also employed before incarceration (Table 6). Approximately 73% of the college group earned less than \$15,000. Seventy-eight percent of the incarcerated sample reported earning less than \$20,000 before incarceration.

Table 5: Reported Income for College and Incarcerated Samples

Income	College		Incarcerated	
	n	%	n	%
\$ 0-\$ 5,999	20	49	14	39
\$ 6,000-\$ 9,999	7	17	3	8
\$10,000-\$14,999	3	7	6	17
\$15,000-\$19,999	3	7	5	14
\$20,000-\$24,999	3	7	5	14
\$25,000-\$29,999	3	7	1	3
\$30,000-\$34,999	1	3	2	5
\$35,000 and above	1	3	0	0
Total	41	100	36 ^a	100%

^aThree subjects did not respond to this item.

Table 6: Employment Status of College and Incarcerated Group

Employment Status	College (n = 41)		Incarcerated (n = 39) ^a	
	n	%	n	%
Employed	21	51	15	38
Self-employed	7	17	12	31
Unemployed	13	32	12	31
Total	41	100%	39	100%

^aEmployment status before incarceration.

The college sample was most likely to be living with parents or spouses. Approximately 68% fell within these groups. In addition, data from the Office of Research and Planning at this particular university indicated that many students attending were the first generation to attend college, and approximately 75% were receiving some form of college financial assistance.

Approximately 54% of the incarcerated sample lived with either parents or spouses before incarceration (Table 7). They were also much more likely to have been living with friends (26%) than the college sample (7%). In general, very few subjects in either group lived alone.

Table 7: Living Arrangement for College and Incarcerated Samples

Living Arrangement	College (n = 41)		Incarcerated (n = 39) ^a	
	n	%	n	%
Parents	19	46	13	33
Wife	9	22	8	21
Relatives	4	10	0	0
Friends	3	7	10	26
Alone	5	12	6	15
Other	1	3	2	5
Total	41	100	39	100

^aLiving arrangement before incarceration.

In terms of place of birth, the groups were more similar than not. Eighty-two percent of the college sample indicated that they were born in Chicago, whereas 70% of the incarcerated subjects were born in Chicago (Table 8).

Table 8: Place of Birth of College and Incarcerated Groups

Place of Birth	College ($n = 41$)		Incarcerated ($n = 39$)	
	n	%	n	%
Chicago, Illinois	33	82.5	26	70
Outside of Chicago	7	17.5	11	30
Total	40 ^a	100.0	37 ^b	100

^aOne college subject did not respond to this item.

^bTwo incarcerated subjects did not respond to this item.

The majority of subjects in both groups reported that they had dependents. Whereas 78% of the college group reported having two or fewer dependents, the incarcerated group was split almost evenly, with 48% reporting two or fewer dependents and 51% reporting three or more dependents (Table 9).

Table 9: Number of Dependents of College and Incarcerated Subjects

No. of Dependents	College ($n = 41$)		Incarcerated ($n = 39$) ^a	
	n	%	n	%
0	0	0	4	10
1	28	68	11	28
2	4	10	4	10
3	6	15	6	15
4	1	2	6	15
5	2	5	8	21
Total	41	100	39	100

Results of Hypothesis Testing

In this section, each hypothesis is restated, followed by the results of the data analysis for that hypothesis.

Hypothesis 1

There will be differences in the mean MMPI-2 Pd scale scores between the incarcerated sample and the college sample. Specifically, the MMPI-2 Pd scale scores of the incarcerated sample will be higher than those of the college sample.

The first hypothesis was tested using the t -test statistic. This test yielded significant results ($t = 3.33$, $p = .0014$, $df = 75$). Thus, African American inmates had significantly higher Pd scale scores than did the control group (Table 10). These results indicate that the MMPI-2 Scale 4 (Pd) validly distinguished

between the incarcerated and control groups, suggesting that the revised instrument can make within-race discriminations.

Table 10: Results of t-Test Between the Incarcerated and College Groups on the MMPI-2 Pd Scale

Group	n	Pd Scale Score	
		Mean	Std. Dev.
College	37	57.9	10.7
Incarcerated	41	66.0	10.9*

*Significant at the .001 level ($p = .0014$).

Although the MMPI-2 Pd scale did discriminate between the two groups, it must be pointed out that the mean score was only mildly elevated. In other words, a T-score greater than 65 is generally considered to be clinically significant (Graham, 1990). The mean score for the incarcerated group in this study was 66. Thus, on the one hand, although a statistically significant difference was found between these two groups, the clinical significance of only mildly elevated scores will have to be considered.

Hypothesis 2

There will be differences in the mean MMPI-2 clinical scale elevations between the incarcerated sample and the college sample. Specifically, the MMPI-2 Pd scale score of the incarcerated sample will be higher than that of the college sample.

Using the t -test statistic, Hypothesis 2 was partially supported. There were several statistically significant results in the clinical scales of the two groups. Namely, mean scores for Scale 2 (Depression: $t = 3.19$, $df = 63$, $p = .0018$), Scale 4 (Psychopathic Deviant: $t = 3.67$, $df = 75$, $p = .005$), Scale 6 (Paranoia: $t = 2.16$, $df = 76$, $p = .05$), and Scale 0 (Social Introversion: $t = 2.10$, $df = 59$, $p = .040$) were higher for the incarcerated group than for the college sample. Table 11 contains the means, standard deviations, and results of the statistical analysis for the MMPI-2 main clinical scales for the two groups.

Table 11: Results of t -Tests Between the Incarcerated and College Samples for the MMPI-2 Main Clinical Scales

Scale	College ($n = 38$)		Incarcerated ($n = 41$)		Signif. Levels	
	Mean	Std. Dev.	Mean	Std. Dev.	t	p
1. Hs	44.60	16.50	41.70	16.20		
2. D	47.80	15.60	57.30	10.20	3.19	.0018**
3. Hy	50.10	11.00	48.80	10.60		
4. Pd	57.90	10.70	66.00	10.90	3.67	.005**
5. Mf	50.79	7.53	48.29	8.29		
6. Pa	58.80	14.20	66.20	15.90	2.16	.05*
7. Pt	22.00	22.10	31.00	21.20		
8. Sc	36.40	24.00	42.10	20.80		
9. Ma	58.50	15.20	58.40	13.50		
10. Si	47.00	12.50	51.93	7.55	2.10	.045*

*Significant at the .05 level.

**Significant at the .01 level.

In examining the T-scores and profile configuration for the incarcerated group, the MMPI-2 code type would be 6/4 or 4/6. Generally, this group would be characterized by repressed hostility and anger, suspicious of others, unable to get along well with others in social situations, immature, self-indulgent, and resentful of authority (Graham, 1990, p. 98). T-scores for the control group were all within normal limits; however, profile configuration was similar, but at more modulated levels of severity.

Hypothesis 3

There will be differences in the MMPI-2 Harris-Lingoes Pd subscale scores between the incarcerated sample and the college sample. Specifically, MMPI-2 Pd subscale scores 1 through 5 will be higher for the incarcerated sample than for the college sample.

Hypothesis 3 was tested using the t-test statistic. This test yielded significant results on Harris-Lingoes Pd subscales 3, 4, and 5. The mean scores on Pd subscales 4 (Social Alienation) and 5 (Self-Alienation) were higher for the incarcerated group than for the college group. However, the mean score on subscale 3 (Social Imperturbability) was higher for the college group (Table 12). Results were not statistically significant for subscales Pd₁ (Familial Discord) and Pd₂ (Authority Problems).

Although Pd subscales have not been highly researched, they provided important information in this study. For example, although results indicated that the two groups were different, based on Pd score results, the Pd subscales gave further insight as to specific areas of differences. It is notable that the two groups

did not differ on Subscale 1 (Familial Conflicts) and Subscale 2 (Authority Problems). Given that one group was incarcerated, one would assume that this group in particular would be viewed as having more difficulty with authority than the control group.

Table 12: Results of t-Tests Between the Incarcerated and College Samples for the MMPI-2 Harris-Lingoes Pd Subscales

Scale	College (n = 38)		Incarcerated (n = 41)		Signif. Levels	
	Mean	Std. Dev.	Mean	Std. Dev.	t	p
Pd ₁	82.90	11.40	62.00	11.40	-0.34	.740
Pd ₂	57.97	9.25	58.44	9.45	0.22	.830
Pd ₃	52.37	7.89	48.59	8.53	-2.05	.044*
Pd ₄	59.60	11.50	69.00	10.70	3.77	.0003**
Pd ₅	57.90	11.70	68.59	9.41	4.46	.0000**

*Significant at the .05 level.

**Significant at the .01 level.

Code for the Pd scale:

Pd₁ = Familial Discord
 Pd₂ = Authority Problems
 Pd₃ = Social Imperturbability
 Pd₄ = Social Alienation
 Pd₅ = Self-Alienation

Another interesting result on the Pd subscales was the statistically significant difference between the two groups on Subscale 4 (Social Alienation)

and Subscale 5 (Self-Alienation). The incarcerated group scored higher, and the difference was significant at the $p = .01$ level. High scores on these two subscales can suggest that subjects in this group are unhappy, not comfortable with themselves, alienated from society, and feel victimized by society (Graham, 1990). (See Appendix C for descriptions of the Pd subscales.)

Hypothesis 4

Within the incarcerated sample, there will be differences in the MMPI-2 Pd scale scores of those reporting being charged with violent crimes compared to those being charged with nonviolent crimes. Specifically, the Pd scale scores for those being charged with violent crimes will be higher than the scores for those being charged with nonviolent crimes.

This hypothesis was tested using the t -test statistic. This prediction, stating that there would be statistically significant differences in the Pd scale scores of those being charged with violent crimes, compared with those being charged with nonviolent crimes, was not supported ($t = 1.71$, $df = 11$, $p = .11$). Thus, there was no significant difference in Pd scale scores for those incarcerated subjects accused of violent crimes. Further, there was no statistically significant difference between these two groups on the five Harris-Lingoes Pd subscales (Table 13).

Ingram et al. (1985) concluded that research findings among violent and nonviolent offenders on the MMPI have been contradictory, at best. In general, it has been difficult to use the MMPI as an instrument to differentiate criminal populations (Ingram et al., 1985). Given that the Pd scale scores from this

sample were only moderately elevated in general, this might make finer differentiations more difficult.

Table 13: Results of *t*-Tests for Pd Scale Differences Between Violent and Nonviolent Incarcerated Subjects

Scale	College (<i>n</i> = 38)		Incarcerated (<i>n</i> = 41)		Signif. Levels	
	Mean	Std. Dev.	Mean	Std. Dev.	<i>t</i>	<i>p</i>
Pd Scale	67.80	11.20	61.30	11.40	-1.71	.110
Pd ₁ Subscale	62.60	10.60	61.80	11.80	0.19	.850
Pd ₂ Subscale	56.10	12.30	59.19	8.43	-0.74	.470
Pd ₃ Subscale	45.50	6.42	49.58	8.97	-1.58	.130
Pd ₄ Subscale	69.60	6.31	68.90	11.90	0.18	.850
Pd ₅ Subscale	68.40	10.80	68.65	9.11	-0.06	.950

Code for scales:

Pd = Scale 4
 Pd₁ = Familial Discord
 Pd₂ = Authority Problems
 Pd₃ = Social Imperturbability
 Pd₄ = Social Alienation
 Pd₅ = Self-Alienation

Hypothesis 5

There will be a positive relationship between the MMPI-2 Pd scale scores of both groups and self-reported criminal activity.

This hypothesis was tested using a regression analysis. This prediction, stating that there will be a positive relationship between Pd scale scores for both groups, was supported and found to be statistically significant when data from

both groups were combined. More specifically, there were no statistically significant results for either the incarcerated group or the college sample when their respective data were analyzed separately. This was probably a result of the small n for each separate group. However, when both sets of data were combined and analyzed together, the results were statistically significant ($F = 1.14$, $df = 1.71$, $r = .23$, $p = .04$), as shown in Table 14. Hence, there was a positive relationship between Pd scores and self-reported crime for both groups. The regression equation was $59.8 + 27.5$, which indicated that subjects with no self-reported criminal activity averaged Pd scores of around $T = 60$, and it can be expected that this score would rise approximately 3 points for each added category of crime.

Although it may not be surprising that criminal activity was positively correlated with Pd scores, it was notable that the control sample also reported engaging in criminal activities. Therefore, it was decided to examine the data differently and determine whether there were differences between the groups in terms of their level of self-reported criminal activity.

The sample was divided into four categories, depending on the group and level of involvement in criminal activity:

- 0 = college subjects and no self-reported criminal activity.
- 1 = college subjects with reported criminal activity.
- 2 = incarcerated subjects with no self-reported criminal activity.
- 3 = incarcerated subjects with self-reported criminal activity.

Analysis of variance results were statistically significant ($F = 4.34$, $df = 3.69$, $p = .007$) and suggest that the groups were different, relative to their levels of self-reported criminal activity and Pd scale scores (Table 15).

Table 14: Analysis of Variance for Pd Scale Scores and Self-Reported Criminal Activity

Source	df	Sum of Squares	Mean Square	F	p
COLLEGE SAMPLE					
Regression	1	127.6	127.6	1.14	.294
Error	33	3705.9	112.3		
Total	34	3833.5			
INCARCERATED SAMPLE					
Regression	1	74.5	74.5	0.58	.450
Error	36	4593.2	127.6		
Total	37	4667.7			
COLLEGE AND INCARCERATED GROUPS COMBINED					
Regression	1	547.0	547.0	4.24	.043*
Error	71	9158.6	129.0		
Total	72	9705.5			

*Significant at the .05 level.

Table 15: Analysis of Variance for Pd Scale and Self-Reported Criminal Activity for College and Incarcerated Groups

Source	df	Sum of Squares	Mean Square	E	p
Group	3	1,540	513	4.34	.007*
Error	69	8,166	118		
Total	72	9,706			

Hypothesis 6

There will be a negative relationship between age and MMPI-2 Pd scale scores in both the incarcerated sample and the college sample.

This hypothesis was tested using regression analysis. This prediction, stating that there would be a negative relationship between age and MMPI-2 Pd scale scores in both groups, was not supported. Instead, results were different than predicted for both groups. There was no relationship between age and Pd scores for the college sample ($E = .02$, $df = 1,34$, $p = .89$, correlation = .02) (see Table 16). However, for the incarcerated group, there was a statistically significant result opposite to the direction of prediction. There was a positive relationship between age and Pd scale scores for the incarcerated group ($E = 5.39$, $df = 1,36$, $p = .026$, correlation = .36) (see Table 17). Finally, according to the regression equation ($44.3 + .757$), there was a positive relationship, and the Pd score increased by almost 8 points for every 10 years of "aging."

Table 16: Analysis of Variance for Pd Scale Score and Age in College Sample

Source	df	Sum of Squares	Mean Square	E	p
Regression	1	2.0	2.0	.02	.897
Error	34	4030.7	118.6		
Total	35	4032.7			

Table 17: Analysis of Variance for Pd Scale Score and Age in Incarcerated Subjects

Source	df	Sum of Squares	Mean Square	E	p
Regression	1	609.5	609.5	5.39	.026*
Error	36	4070.8	113.3		
Total	37	4680.2			

*Significant at the .05 level.

These results were somewhat surprising. It is generally expected that younger people are more rebellious and tend to "act out" against authority. Accordingly, one would be expected to accept societal norms with increasing age and hence, obtain lower Pd scale scores. However, given that this group of incarcerated subjects was not perceived to be a part of the mainstream, the same assumptions may not apply. Instead, higher Pd scores for older subjects may be a result of a life of continued disenfranchisement whereby a lack of jobs, and so on, prevents one from obtaining any true measure of "success" in the

normative sense. Therefore, one could speculate that the only alternative is to continue deviant and more antisocial practices.

This theory was underscored in a recent article highlighting a study of Chicago's urban poor (Reynolds, 1992). These data showed that "being an immigrant—even an illiterate one—was even less of a handicap than being Black" (p. 83). It was also noted that area employers admitted that they tried to avoid hiring Black men. Understandably, it may not be a total surprise that antisocial tendencies, as measured by the Pd scale, increased rather than decreased with age in this study.

Dahlstrom et al. (1989) compared Pd scores for a group of "normal Black males and four different age groups (18-24, 25-34, 35-49, >50). These comparisons resulted in statistically significant differences at the $p = .001$ level" (p. 237). However, the I -score differences were greatest between the youngest age group ($I = 65.7$) and the oldest group ($I = 59.0$).

Hypothesis 7

Repeat offenders will have higher Pd scale scores and Harris-Lingoes Pd subscale scores than will first-time offenders.

This hypothesis, stating that there will be differences on the Pd scale and Harris-Lingoes Pd subscales between first offenders and repeat offenders, was tested using the t -test statistic. For the MMPI-2 Pd scale (Scale 4), this t -test did not yield significant results ($t = -1.40$, $df = 26$, $p = .17$). However, results were mixed for the five Harris-Lingoes subscales. Pd 2 (Authority Problems) yielded

statistically significant results ($t = -3.05$, $df = 21$, $p = .006$). Differences between the two groups on Pd 5 (Self-Alienation) were also statistically significant ($t = 2.37$, $df = 23$, $p = .02$). There were no statistically significant results for subscales Pd 1 (familial Conflicts), Pd 3 (Social Imperturbability), and Pd 4 (Social Alienation) (see Table 18).

Table 18: Results of t -Tests Between First Time and Repeat Offenders for MMPI-2 Pd Scale and Harris-Lingoes Pd Subscales

Scale	First Offenders ($n = 12$)		Repeat Offenders ($n = 41$)		Signif. Levels	
	Mean	Std. Dev.	Mean	Std. Dev.	t	p
Pd	62.25	9.55	67.30	11.80	-1.40	.170
Pd ₁	61.25	9.31	62.10	12.90	-0.22	.820
Pd ₂	52.08	8.49	61.08	8.38	-3.05	.006**
Pd ₃	49.00	6.00	47.54	9.27	0.50	.620
Pd ₄	71.30	10.40	69.00	11.10	0.58	.560
Pd ₅	63.75	8.39	70.96	9.39	-2.37	.027*

*Significant at the .05 level.

**Significant at the .01 level.

These results were somewhat surprising. One would expect that repeat offenders would be more "antisocial" and therefore different from first offenders. However, the results did not support this assumption. Adams (1976) concluded that higher Pd scores were associated with recidivism.

Again, the lack of significant differences between the two groups on the parent Pd scale may be due to the moderate elevation of the scores for the sample as a whole. Therefore, it may be important to examine the Pd subscale scores. Here, statistically significant differences between the two groups were evident. Results indicated that there were differences between repeat offenders and first offenders on Pd subscale 2 (Authority Problems) and Pd subscale 5 (Self-Alienation). These results underscore Graham's (1990) suggestion to examine subscale scores when the parent scale is only moderately elevated. (See Appendices D and E for descriptors of the Pd scale and subscales, respectively.)

Hypothesis 8

There will be differences on the MMPI-2 MacAndrews Alcoholism Revised (MAC-R) subscale scores between the incarcerated sample and the college sample. Specifically, the MAC-R subscale scores will be higher for the incarcerated sample than for the college sample.

This hypothesis was tested using the t -test statistic. The results did achieve significance ($t = 2.66$, $df = 75$, $p = .006$) (see Table 19). Thus, the incarcerated group endorsed more items on the MAC-R scale, suggesting a greater likelihood of this group using and/or abusing substances. (See Appendix F for MAC-R scale descriptions.)

Table 19: Results of *t*-Tests Between Incarcerated and College Groups for the MMPI-2 MAC-R Scale

Group	n	Raw Score		<i>t</i> -Score	
		Mean	Std. Dev.	Mean	Std. Dev.
College	38	24.86	7.80	57.30	12.1
Incarcerated	41	27.87	6.25	64.4	11.3

Note: Statistically significant at alpha = .01, $p = .0096$.

According to Graham (1990), MAC-R raw scores between 24 and 27 (*T*-scores = 62 to 70) are somewhat suggestive of substance abuse, raw scores of 28 and above (*T*-score > 73) are strongly suggestive of substance abuse, and raw scores below 24 (*T*-score < 62) contraindicate a substance-abuse problem (p. 153). As indicated in Table 19, the results for the college group suggest that they were slightly at risk for substance abuse. However, the results for the incarcerated group strongly suggested a substance-abuse problem.

These results fit the profile of many incarcerated subjects who have histories of alcohol and drug use, and who are often incarcerated for drug charges as well. Although Graham (1990) cautioned against the use of the MAC-R scale with Blacks, these results actually give the scale some validity by discriminating between groups and suggesting that the incarcerated subjects were more at risk for alcohol and/or substance abuse. However, caution must still be used when interpreting individual scores.

Hypothesis 9

There will be a positive relationship between MAC-R subscale scores and self-reported alcohol and drug use in both the incarcerated sample and the college sample.

This hypothesis was tested using regression analysis. This prediction, stating that there will be a positive relationship between MacAndrews Alcoholism Scale Revised (MAC-R) and self-reported alcohol and drug use, was found to be statistically significant ($F = 3.76$, $df = 2,31$, $p = .034$) (see Table 20) for the college sample, but it was not supported for the incarcerated group ($F = 0.10$, $df = 2,38$, $p = .91$) (see Table 21).

In general, higher MAC-R scores were associated with increased levels of reported alcohol and/or drug use. Elevated scores on the MAC-R scale suggest a general proneness to addiction. Thus, to have scores positively associated with self-reported alcohol and drug use may give the MAC-R scale more predictive validity. However, Dahlstrom et al. (1989) and Graham (1990) both indicated that there is a tendency for MAC-R scores to result in "false positives" for Blacks. In other words, the scale tends to overly "pathologize" and incorrectly label Black subjects as having a proneness for substance abuse. Although there was no evidence of "false positives" in these results and even though the MAC-R scale demonstrated its criterion and predictive validity, it is important to obtain additional data to support the accuracy of scores in general.

Table 20: Analysis of Variance for Self-Reported Alcohol and Drug Use and MAC-R Scores^a for the College Sample

Source	df	Sum of Squares	Mean Square	E	p
Alcohol and drug use	2	1040	520	3.76	.034*
Error	31	4287	138		
Total	33	5327			

*Significant at the .05 level.

^aT-score means and standard deviations.

Table 21: Analysis of Variance for Self-Reported Alcohol and Drug Use and MAC-R Scores^a for the Incarcerated Sample

Source	df	Sum of Squares	Mean Square	E	p
Alcohol and drug use	2	25	13	0.10	.910
Error	36	4758	132		
Total	38	4783			

^aT-score means and standard deviations.

Hypothesis 10

There will be a negative relationship between socioeconomic status (SES) and MMPI-2 Pd scale scores in both the incarcerated sample and the college sample.

This hypothesis was tested using the Pearson product-moment correlation coefficient to compare the relationship between socioeconomic status and Pd

scale scores in both the college and incarcerated groups. This prediction, stating that there will be a negative relationship between socioeconomic status and Pd scale scores, was not found to be statistically significant. However, there was a negative relationship ($r = -.282$ for education and $r = -.10$ for income) between socioeconomic status and Pd scale scores.

In other words, higher education and income levels were associated with lower Pd scale scores. However, due to the low magnitude of the correlation coefficients, socioeconomic status did not explain very much of the variability in Pd scale scores. A test of difference of correlations was done to determine whether or not education or income was more likely to explain the variability in Pd scale scores. However, these results were not statistically significant. Thus, neither of the two indicators of socioeconomic status explained much of the variability in the Pd scale scores.

Regression analysis was used to test how much socioeconomic status affected Pd scale scores. Again, these results were not statistically significant ($F = .23$, $df = 2,34$, $p = .79$) (see Table 22). Apparently this outcome is consistent with Snedecor and Cochran (1980), who stated, "When r is .5 or less, only a minor portion of the variation in Y can be attributed to its linear regression on X An r of .2 would be significant at the 1% level, but would indicate that 96% of the variation in Y was not explainable through its relation with X " (p. 181). Although socioeconomic status should be considered when evaluating

standardized test results (Greene, 1987), it was not a significant predictor of Pd scale scores in this study.

Table 22: Analysis of Variance of Pd Scale Score and Socioeconomic Status

Source	df	Sum of Squares	Mean Square	E	p
Regression	2	61.8	30.9	0.23	.797
Error	34	4613.8	135.7		
Total	36	4675.6			

Post-Hoc Analysis

Although major hypotheses in this study did not include gang activity as a variable of investigation, it became apparent that it might yield important comparisons. Although the Pd scale scores were found to be a predictor of group status, involvement in a gang was overlooked as a source of information regarding differences between the two groups.

In addition, whereas subjects in both the college group and the incarcerated group indicated that they had been involved in gangs, it may be worthwhile to determine to what extent gang involvement was a significant variable in this study. Thus, it was believed that a statistical comparison might provide more information regarding personality characteristics of those African American males who ended up incarcerated and those who ended up in college.

The *t*-test statistic was used to compare those subjects who admitted to being involved in a gang at some time in their lives with those who had not been involved. There were several statistically significant results. Table 23 highlights those variables for which differences between the groups were statistically significant.

Table 23: Results of *t*-Tests Between Gang Involvement and Noninvolvement for All Subjects

Variable	No Gang Activity (<i>n</i> =50)		Gang Activity (<i>n</i> =26)		Signif. Levels	
	Mean	Std. Dev.	Mean	Std. Dev.	<i>t</i>	<i>p</i>
MMPI-2 L Scale	56.90	13.00	49.90	11.90	-2.36	.020*
MMPI-2 Scale 9	56.30	14.20	63.70	12.80	-2.30	.020*
MAC-R Scale ^a	58.50	12.70	64.85	9.81	-2.40	.010**
Previous incarceration	.269	.44	.556	.500	-2.48	.017**
Criminal activity	.045	.07	.132	.113	-3.48	.001**
Self-reported drug use	.208	.40	.560	.500	-3.04	.004**
Violent crimes	.170	.37	.037	.190	2.08	.040*

Code: MMPI-2 Scale 9 (Mania)

MAC-R Scale^a = *T*-scores

*Significant at the .05 level.

**Significant at the .01 level.

Notably, gang activity was found to be statistically significant on the MMPI-2 L (Lie) scale ($t = 2.36$, $df = 54$, $p = .022$), MMPI-2 Scale 9 (Mania) ($t = -2.30$, $df = 55$, $p = .025$), MAC-R scale ($t = -2.40$, $df = 62$, $p = .019$), previous incarceration ($t = -2.48$, $df = 47$, $p = .017$), self-reported criminal activity ($t = 3.48$, $df = 35$, $p = .001$), self-reported drug use ($t = -3.04$, $df = 39$, $p = .004$), and violent crimes ($t = 2.08$, $df = 77$, $p = .041$). These results indicate that past gang involvement was predictive of a more deviant and/or antisocial personality.

Upon separate statistical examination of the college sample, a similar profile emerged. Gang involvement for the college group was associated with a more troubled and pathological personality (Table 24). Statistically significant differences were evident on several MMPI-2 scales and subscales.

Statistical comparison of the incarcerated subjects as a single group yielded several significant differences as well (Table 25). Here, gang involvement appeared to be associated with more criminal activity, violence, and less income and education. Thus, examination of the large differences between those involved in gangs and those who had not been involved suggested that gangs may be a powerful influence in the lives of African American males.

Table 24: Results of t-Tests Between Gang Involvement and Noninvolvement for College Subjects

Variable	No Gang Activity (n=25)		Gang Activity (n=12)		Signif. Levels	
	Mean	Std. Dev.	Mean	Std. Dev.	t	p
MMPI-2 L Scale	59.00	13.60	45.58	6.67	4.03	.003**
MMPI-2 K Scale	48.72	8.12	39.92	7.27	3.32	.002**
MMPI-2 Scale 7	17.00	20.10	34.20	22.50	-2.26	.036*
MMPI-2 Scale 9	56.30	16.00	65.17	9.87	-2.07	.046*
MAC-R Scale ^a	53.70	12.40	65.25	8.18	-2.94	.005**
Pd Subscale 4	55.16	9.15	68.70	11.20	-3.63	.001**
Pd Subscale 5	55.30	10.30	63.80	13.10	-2.14	.039*
Self-reported drug use	.143	.356	.636	.500	-2.97	.010**

Code: MMPI-2 Scale 7 (Psychothenia)
MMPI-2 Scale 9 (Mania)
MAC-R Scale^a = T-scores
Pd Subscale 4 (Social Alienation)
Pd Subscale 5 (Self-Alienation)

*Significant at the .05 level.

**Significant at the .01 level.

Table 25: Results of t-Tests Between Gang Involvement and Noninvolvement for Incarcerated Subjects

Variable	No Gang Activity (n=25)		Gang Activity (n=14)		Signif. Levels	
	Mean	Std. Dev.	Mean	Std. Dev.	t	p
MMPI-2 Scale 5 (MF)	50.64	7.68	44.43	8.64	2.24	.035*
Previous criminal activity	.07	.08	.166	.06	-3.69	.0009**
Violent crimes	.36	.49	.070	.26	2.38	.023*
Income	2.33	1.90	1.08	1.55	2.17	.039*
Employment	.80	.40	.50	.51	2.00	.053**

*Significant at the .05 level.

**Significant at the .01 level.

Summary

The major hypothesis investigated and presented in this chapter was designed to assess the predictive validity of the Pd (Psychopathic Deviate) scale of the MMPI-2 in two groups of African American males. Of primary interest was the prediction of whether the Pd scale could differentiate levels of social deviance. In addition, the Harris-Lingoes Pd subscales and selected background variables were investigated.

It was found that the Pd scale of the revised MMPI-2 was a significant predictor of social deviance in this study. Further, it was evident that the Harris-Lingoes Pd subscales Pd 4 (Social Alienation) and Pd 5 (Self-Alienation) were

useful in predicting group status. The Pd 1 (Familial Conflict) and Pd 2 (Authority Problems) subscales were not found to be significant factors in determining group status of "normal" or "antisocial."

Higher scores on the Pd scale also were associated with self-reported criminal activity, but not with recidivism. However, Pd subscale 2 (Authority Problems) and Pd subscale 4 (Social Alienation) did distinguish first offenders from repeat offenders.

Regression analysis revealed that there was no statistically significant relationship between Pd scores and age in the college sample. However, there was a positive relationship between Pd scores and age in the incarcerated group. These results were not as expected and contradict much of the literature.

In examining the main MMPI-2 clinical scales, several were found to show statistically significant differences between the two groups. Surprisingly, the T-score means were generally within normal limits, with the exception of some moderately elevated scales for the incarcerated group.

Higher educational and income levels were associated with lower Pd scale scores. However, Pd scale scores and socioeconomic status were not found to be statistically significant.

In the investigation of the MacAndrews Alcoholism Scale Revised (MAC-R), the hypothesis stating that the incarcerated group would be more at risk than the college group for substance abuse was supported. Additional results indicate

that the MAC-R scale had more predictive validity in this study than is generally expected.

Finally, post-hoc analysis showed the background variable of gang involvement to be significantly associated with various dependent variables in both the incarcerated and college samples. It did not, however, affect Pd scale scores in either group.

Chapter V contains a more detailed summary of the results of this study. A discussion of the implications of the results also is presented.

CHAPTER V

SUMMARY AND CONCLUSIONS

This chapter contains a summary of the results, conclusions, and limitations of the study. In addition, clinical implications and recommendations for future research are discussed. The chapter is organized into the following sections: (a) Review of the Study, (b) Conclusions Regarding Demographic Information, (c) Conclusions Regarding Major Hypotheses, (d) Conclusions Regarding Post-Hoc Comparisons, (e) Limitations, (f) Clinical Implications, and (g) Recommendations for Future Research.

Review of the Study

In this study, the researcher investigated the ability of the MMPI-2 to validly discriminate levels of social deviance in two groups of African American males. In addition, selected background variables that may put one group at risk of incarceration were also examined. The MMPI-2 Pd (Psychopathic Deviate) scale and the Harris-Lingoes subscales were used to measure social deviance. A questionnaire developed by the researcher was used to collect background information.

As discussed in the review of the literature, the Pd scale has been found to be significantly associated with prisoners, and so on. In addition, the MMPI-2 in general has been criticized as being racially biased. In general, it was hoped that this study would further the understanding of the MMPI-2 Pd scale's ability to make within-racial-group distinctions and contribute to the existing literature on the MMPI and issues of racial bias. It was further hoped that this study would increase understanding of variables that distinguish African American males who are incarcerated from those who are enrolled in college.

The data were treated in several ways, incorporating frequencies, percentages, means, standard deviations, the t -test statistic, analysis of variance, and regression analysis. Based on the data treatment, the following conclusions were drawn.

Conclusions Regarding Demographic Variables

In examining the demographic information on the African American males in this study, it was concluded that subjects in the two groups were similar in many ways. They were low to middle income, urban males who were marginally employed and in many instances involved in criminal activity like selling drugs. Understandably, the college subjects had more education than the incarcerated group in general. Many of the incarcerated subjects had "some college," and a few had college degrees. Generally, however, as educational level increased, the Pd scale scores decreased. Thus, it was concluded that education was a

moderator variable for the Pd scale score in this study, but it was not necessarily a deterrent for incarceration in this population.

Conclusions Regarding the Major Hypotheses

The first hypothesis, stating that the incarcerated group would score higher than the college group on the MMPI-2 Pd scale, did achieve statistical significance ($t = 3.33$, $p = .0014$, Table 9). The purpose of this hypothesis was to cross-validate the Pd (Psychopathic Deviate) scale with a group of urban, midwestern, African American males and to compare these results to the body of existing data. Such a comparison could either add to the credibility of the MMPI or raise even more questions regarding test bias and the need for separate norms for specific racial groups.

The data, in fact, demonstrated the predictive validity of the MMPI-2 in this study. Statistically significant differences on the Pd scale main scale were found between the incarcerated group and the control group who were enrolled in college. Further evidence that the groups were different was supported by statistically significant differences in the level of self-reported criminal activity (Table 13). However, it must be pointed out that T-scores on the Pd scale were within normal limits for the college group and only mildly elevated for the incarcerated group ($T = 57.9$ and 66.0 for the college and incarcerated groups, respectively—Table 9).

One conclusion that could be drawn from these results is that, although there was a statistically significant difference between the two groups, the

"deviant" group was not necessarily pathological. The fact that the MMPI-2 clinical scale elevations for the incarcerated group were mostly within normal limits, with the exception of mild elevations on Scales 4 and 6 (Table 10), underscores this point.

Graham's (1990) recommendation to examine subscale scores, especially for mildly elevated scales, was important in this study. Namely, Pd Subscales 4 and 5 (Social Alienation and Self-Alienation, respectively) yielded statistically significant results (Table 11). These subscale scores suggest that the incarcerated group felt a sense of alienation from society and from themselves. In other words, it could be concluded that they felt victimized. What is not obvious, however, is whether this sense of victimization was a result of incarceration, or whether feelings of victimization somehow led to criminal activity and subsequent incarceration. The fact that there were statistically significant differences between repeat offenders and first offenders on Pd Subscales 2 (Authority Problems) and 5 (Self-Alienation) (Table 17), with repeat offenders scoring high on both, suggests strong arguments for both theories.

The fact that age was positively associated with the main Pd scale (Table 16) suggests that criminal activity/deviant behavior becomes an entrenched pattern. Thus, it can be concluded that once deviance becomes a way of life, it continues, which leads to a pattern of incarceration-release-incarceration. Obviously, age was not a moderating variable for the main Pd scale in this study.

Another conclusion in this study is that there was a direct relationship between drug involvement and incarceration. Subjects in the incarcerated group scored significantly higher on the MAC-R scale (Table 18) than those in the control group. In addition, many in the incarcerated group also indicated that they had been involved in selling drugs. Thus, a history of illegal drug use, unemployment, and drug sales may lead to incarceration.

Finally, socioeconomic status was not a significant variable in this study. Pd scale scores were not significantly affected by socioeconomic level, which was defined as a combination of education and income. Results of the regression analysis suggest that socioeconomic status did not predict very much of the variability in Pd scale scores (Table 22).

Post-Hoc Conclusions

Previous gang involvement was predictive of a more deviant and/or antisocial personality. Statistically significant differences were found between those who had been previously involved in gangs and those who had not (Tables 26 and 27). Thus, a history of gang activity negatively affected subjects in both the incarcerated and control groups in this study. Gang activity appears to have a powerful influence on personality and behavior and to increase the likelihood of future incarceration. Again, what is not clear is whether individuals with more antisocial traits tend to join gangs, or whether gang involvement strongly influences personality.

Limitations

Limitations in this study included the following:

Sampling Limitations

1. The population surveyed was only a specific portion of the total U.S. population of African American male undergraduate college students located in the midwestern United States. A second group included African American male detainees in a large midwestern correctional facility. Thus, the results of this study are limited in their potential to be generalized.

2. The population surveyed consisted of African American males aged 21 to 41. Data may only be interpreted regarding this specific group of respondents. Caution should be exercised for use with other populations.

3. All data were gathered according to the self-reporting of the subjects. Thus, respondents' veracity and earnestness were merely assumed and cannot be guaranteed.

4. The majority of subjects in this study had at least a high school diploma, and many had some college. Thus, this group of African American males reflects a more educated sample.

Measurement Limitations

1. The MMPI-2 was constructed for an eighth-grade reading level. This may have served as a barrier for subjects with intellectual or educational deficits.

2. The MMPI-2 was revised in 1989, and limited data are available regarding validity issues, effects of the new changes, and racial-group differences.

3. The sample size may have contributed to measurement error. Although the two groups were basically equal in number, a much larger sample size, representing more of the population, may have enhanced the results, especially for statistical tests that were done with very small n sizes.

Clinical Implications

Given the limitations described above, the results of this study revealed several implications that may prove useful for human-service professionals. Mental health practitioners working with African American males will have the knowledge that the MMPI-2 Pd scale has predictive validity for this population on a group basis. However, caution must be used when interpreting individual scores. Also, it is important to understand that incarcerated subjects may score within normal limits on the Pd scale. Thus, higher Pd scale scores may not always be associated with those who are incarcerated. However, even mild elevations ($T = 55-60$) may be suggestive of rebelliousness (Graham, 1990) and imply that these subjects may not respond well to counseling and/or psychotherapy. Therefore, systemic counseling (Gunnings & Lipscomb, 1986) and nontraditional interventions may be needed.

When examining the implications for therapy, clinicians need to be aware of the importance of Pd subscale scores in identifying content areas that may be

significant in treatment. In this study, Pd Subscales 4 (Social Alienation) and 5 (Self-Alienation) were statistically significant, indicating that the incarcerated group was feeling at odds with themselves and society. However, what could not be distinguished in this study is whether the sense of alienation was a result of incarceration or a precursor to incarceration. Nevertheless, these content areas are worthy of exploration in the treatment process.

The general lack of significant clinical scale elevations on the MMPI-2 profiles of the incarcerated population may indicate the necessity of looking at other factors that may lead to criminal activity and subsequent incarceration. For example, if large numbers of African American males are unemployed and must choose between being penniless or obtaining quick cash by selling drugs, the choice is obvious. Although this researcher is not justifying criminal activity, it is understandable why such a choice may be made, given the limited options that exist for this group. Thus, it is important that clinicians do not take a position of "blaming the victim" in their interventions with this population. Instead, mental health practitioners need to be increasingly aware of larger political and social issues that contribute to the disproportionate number of African American males in prison.

Considering the large number of subjects in this study who were involved in alcohol and drug use (based on self-reports and the MAC-R score), it is imperative that mental health practitioners have training in chemical dependency. Such training should address issues on several levels. For example:

1. Practitioners should be aware of both affective and cognitive responses within clients that stimulate the need to indulge in drugs and/or alcohol. They should also be aware of differences in special populations and risk factors unique to specific groups. Finally, service providers must be able to consider culture-specific treatment approaches.

2. Researchers should continue to investigate theories of addiction and connect these findings to treatment.

3. Trainers should be skilled in and knowledgeable about the development, treatment, and prevention of addiction. Those professionals involved in training programs also need to alert service providers to the possibility of "burn-out" and offer suggestions for professional help. Finally, trainers must address the importance of differential diagnosis in assessment and discuss variables such as race and gender.

Although it is evident that the incarcerated group was more at risk for alcohol and drug use, this appeared to be a problem for many subjects in this study. Also, drug use and sales were highly correlated with incarceration. Thus, those who choose to work with Black males in a clinical setting need to be skilled in and knowledgeable about chemical-dependency issues.

Another implication for treatment has to do with the financial and emotional hardships placed on African American families when large numbers of males are absent as a result of incarceration. Although it is difficult to measure the effects of such devastation on a family, mental health practitioners

need to be able to address the needs of single, female-headed households and children who have limited positive male role models.

Finally, the MMPI is widely used and accepted as a measure of personality functioning. While clinicians and practitioners continue to use it in a variety of settings, researchers must also continue to evaluate the appropriateness and validity of assessment instruments for specific groups. Given the history of psychological research and assessment with certain groups, such a process is both appropriate and necessary. Thus, such validity questions about the MMPI-2 and African American males were examined in this study. Furthermore, it is hoped that this study will lead human-service professionals and others to address the broader societal issue of the overrepresentation of Black males in prison.

Recommendations for Future Research

Based on the results of this study, the recommendations for future research are proposed:

1. To conduct a larger study, including multiple sites, in different geographic regions, to determine whether these results are generalizable to other than a large, urban midwestern population.
2. To continue investigation of the MMPI-2 Pd subscales, with particular attention to Subscale 4 (Social Alienation) and 5 (Self-Alienation).

3. To consider undertaking long-term studies tracking high-risk youths, particularly those involved in gang activity. Few detailed studies have been done recently with African American gangs (Taylor, 1990).
4. To expand research regarding substance abuse in African American males.
5. To continue research regarding validity issues and racial bias in personality assessment and diagnosis.
6. To develop more culturally sensitive instruments for assessing personality functioning.
7. To investigate the interplay between psychology and the criminal justice system, with special attention to psychological testing.
8. To further the investigation of background and behavioral correlates of African American males who are incarcerated.

APPENDICES

APPENDIX A

QUESTIONNAIRES

Questionnaire for College Subjects

Code Number _____

DEMOGRAPHIC DATA SHEET

PLEASE ANSWER THE FOLLOWING QUESTIONS. ALL ANSWERS WILL REMAIN CONFIDENTIAL AND WILL ONLY BE USED FOR THIS STUDY.

1. What is your age? _____
2. Place of birth (city and state) _____
3. With whom do you live? (Circle one)
 - a. parents
 - b. wife
 - c. relatives
 - d. friends
 - e. alone
 - f. significant other
 - g. other _____
4. Number of dependents (Circle one)
 - a. none
 - b. one
 - c. two
 - d. three
 - e. four
 - f. five
 - g. more than five
5. Educational level
 - a. less than high school
 - b. some high school
 - c. high school grad/GED
 - d. some college
(__Fr __So __Jr __Sr)
 - e. college graduate
 - f. graduate studies
 - g. graduate degree
6. Current employment status
 - a. employed
 - b. unemployed
 - c. seeking employment
 - d. self-employed
 - e. disabled/retired
 - d. job title _____

7. Annual income
- | | |
|----------------------|----------------------|
| a. \$ 0-\$ 5,999 | e. \$20,000-\$24,999 |
| b. \$ 6,000-\$ 9,999 | f. \$25,000-\$29,999 |
| c. \$10,000-\$14,999 | g. \$30,000-\$34,999 |
8. I have an incarceration record.
- | | |
|--------|-------|
| a. Yes | b. No |
|--------|-------|
9. If previously incarcerated, what was your charge? _____

10. I have been involved in a gang.
- | | |
|--------|-------|
| a. Yes | b. No |
|--------|-------|
11. I have been involved in the following: (Circle all that apply)
- | | |
|---------------|-------------------------|
| a. arson | d. embezzlement/forgery |
| b. drug sales | e. mobster activity |
| c. assault | f. none of the above |
12. I have used: (Circle all that apply)
- | |
|------------|
| a. alcohol |
| b. drugs |
| c. none |
13. I have a medical problem.
- | | |
|--------|-------|
| a. Yes | b. No |
|--------|-------|
14. This medical problem requires on-going medication.
- | | |
|--------|-------|
| a. Yes | b. No |
|--------|-------|
15. I have difficulty dealing with my emotions.
- | | |
|--------|-------|
| a. Yes | b. No |
|--------|-------|
16. I have difficulty dealing with my behaviors.
- | | |
|--------|-------|
| a. Yes | b. No |
|--------|-------|

- 17. I have a psychological condition that requires medication.**
- a. Yes b. No

Questionnaire for Incarcerated Subjects

Code Number _____

DEMOGRAPHIC DATA SHEET

PLEASE ANSWER THE FOLLOWING QUESTIONS. ALL ANSWERS WILL REMAIN CONFIDENTIAL AND WILL ONLY BE USED FOR THIS STUDY.

1. What is your age? _____
2. Place of birth (city and state) _____
3. Prior to incarceration, with whom did you live? (Circle one)

a. parents	e. alone
b. wife	f. significant other
c. relatives	g. other _____
d. friends	
4. Number of dependents (Circle one)

a. none	e. four
b. one	f. five
c. two	g. more than five
d. three	
5. Educational level

a. less than high school	e. college graduate
b. some high school	f. graduate studies
c. high school grad/GED	g. graduate degree
d. some college	
(__Fr __So __Jr __Sr)	
6. Prior to incarceration, my employment status was: (Circle one)

a. employed	d. disabled/retired
b. unemployed	e. seeking employment
c. self-employed	d. job title _____

7. Prior to incarceration, my yearly income was:
 - a. \$ 0-\$ 5,999
 - b. \$ 6,000-\$ 9,999
 - c. \$10,000-\$14,999
 - d. \$15,000-\$19,999
 - e. \$20,000-\$24,999
 - f. \$25,000-\$29,999
 - g. \$30,000-\$34,999
 - h. \$35,000 and above
8. I have a prior incarceration record.
 - a. Yes
 - b. No
9. What is your current charge? _____

10. Prior to incarceration, I was involved in a gang.
 - a. Yes
 - b. No
11. Prior to incarceration, I was involved in the following: (Circle all that apply)
 - a. arson
 - b. drug sales
 - c. assault
 - d. embezzlement/forgery
 - e. mobster activity
 - f. none of the above
12. Prior to incarceration, I used: (Circle all that apply)
 - a. alcoholic beverages
 - b. drugs
 - c. none
13. I have a medical problem.
 - a. Yes
 - b. No
14. This medical problem requires on-going medication.
 - a. Yes
 - b. No
15. I have difficulty dealing with my emotions.
 - a. Yes
 - b. No

16. I have difficulty dealing with my behaviors.

a. Yes

b. No

17. I have a psychological condition that requires medication.

a. Yes

b. No

APPENDIX B

PARTICIPATION REQUEST/INFORMED CONSENT

Participation Request/Informed Consent

My name is Francene Bellamy, and I am a doctoral student at Michigan State University. I am presently obtaining information for my dissertation.

My research is focused on African American men and trying to understand the difficulties they may be having, if any. There are any number of ways for counselors and other professionals to obtain such information, which may include questionnaires and personality inventories. A major purpose of this research is to investigate the usefulness of a personality inventory called the Minnesota Multiphasic Personality Inventory-2, for African American men.

Your MMPI-2 results will be used without your names attached to them. Thus, results will be strictly confidential and you will remain anonymous.

If you decide to participate in this study, it will take approximately one to one and one-half hours of your time. I will be glad to provide you with the results of this study if you are interested.

Thank you for your cooperation and participation.

APPENDIX C

MICHIGAN STATE UNIVERSITY DEPARTMENTAL
RESEARCH CONSENT FORM

Michigan State University

Department of Counseling Psychology, Educational
Psychology and Special Education

DEPARTMENTAL RESEARCH CONSENT FORM

1. I have freely consented to take part in this study which is being conducted by Francene Bellamy, a doctoral student in Counseling Psychology at Michigan State University.
2. This study has been explained to me and I understand what my part will involve. My participation in this research is completely voluntary.
3. I understand that my participation will pose no risks or discomfort to me, and that I am free to discontinue my participation in the study at any time.
4. I understand that the results of this study are strictly confidential and that I will remain anonymous. However, within these restrictions, results of the study will be made available to me at my request.
5. I understand that my participation in this study does not guarantee any beneficial results to me.

Signature

Francene Bellamy, M.A.
Doctoral Student

Print Name

Dr. Gloria Smith
Chairperson

Date

APPENDIX D

Pd SCALE DESCRIPTIONS

Pd Scale Descriptions

Summary of Descriptors for Pd Scale 4

High scores on Scale 4 are indicative of persons who:

1. have difficulty incorporating values and standards of society
2. may engage in asocial and antisocial acts, including lying, cheating, stealing, sexual acting out, excessive use of alcohol and/or drugs (especially if T > 75)
3. are rebellious toward authority figures
4. have stormy relationships with families
5. blame family members for difficulties
6. have histories of underachievement
7. tend to experience marital problems
8. are impulsive and strive for immediate gratification of impulses
9. do not plan their behavior well
10. tend to act without considering the consequence of their actions
11. are impatient; have limited frustration tolerance
12. show poor judgment; take risks
13. tend not to profit from experiences
14. are seen by others as immature and childish
15. are narcissistic, self-centered, selfish, and egocentric
16. are ostentatious and exhibitionistic
17. are insensitive to the needs of feelings of others
18. are interested in others in terms of how they can be used

19. are likable; create good first impressions
20. have shallow and superficial relationships
21. seem unable to form warm attachments with others
22. are extroverted and outgoing
23. are talkative, active, adventurous, energetic, spontaneous
24. are judged by others to be intelligent and self-confident
25. have wide range of interests but lack clear direction
26. tend to be hostile, aggressive, resentful, rebellious, etc.
27. have sarcastic and cynical attitudes
28. may act in aggressive ways
29. females may express aggression in more passive indirect way
30. may feel guilt and remorse when in trouble
31. are not seen as overwhelmed by emotional turmoil
32. may admit feeling sad, fearful, and worried about the future
33. experience absence of deep emotional response
34. feel empty and bored
35. if psychiatric patients, are likely to receive antisocial or passive-aggressive personality disorder diagnoses
36. have poor prognosis for psychotherapy or counseling
37. may agree to treatment to avoid something more unpleasant
38. tend to terminate treatment prematurely
39. in treatment, tend to intellectualize excessively and to blame others for difficulties

Low scores on Scale 4 are indicative of persons who:

1. tend to be conventional, conforming, and accepting of authority
2. are passive, submissive, and unassertive
3. are concerned about how others will react to them
4. tend to be sincere and trusting in relationships
5. have a low level of drive
6. are concerned about status and security but tend not to be competitive
7. have a narrow range of interests
8. are not creative or spontaneous in their approach to problems
9. are persistent in problem solving
10. are moralistic and rigid in their views
11. if males, may not have much sex drive
12. are self-critical and dissatisfied with self
13. accept advice and suggestions
14. may become overly dependent on treatment
15. seem to be afraid to accept responsibility for their own behavior

APPENDIX E

Pd SUBSCALE DESCRIPTIONS

Pd Subscale Descriptions

Familial Discord (Pd1)

High scores on the Pd1 subscale indicate persons who:

1. describe their home and family situations as quite unpleasant
2. have felt like leaving their home situations
3. describe their homes as lacking in love, understanding, and support
4. describe their homes as critical, quarrelsome, and refusing to permit adequate freedom and independence

Low scores on the Pd1 subscale indicate persons who:

1. describe their home and family situations in very positive terms
2. see their families offering love, understanding, and support
3. describe their families as not being overly controlling or domineering

Authority Problems (Pd2)

High scores on the Pd2 subscale indicate persons who:

1. resent societal and parental standards and customs
2. admit to having been in trouble in school or with the law
3. have definite opinions about what is right and wrong
4. stand up for what they believe
5. are not greatly influenced by the values and standards of others

Low scores on the Pd2 subscale indicate persons who:

1. tend to be very socially conforming and accepting of authority
2. do not express personal opinions or beliefs openly
3. are easily influenced by other people
4. deny having been in trouble in school or with the law

Social Imperturbability (Pd3)

High scores on the Pd3 subscale indicate persons who:

1. present themselves as comfortable and confident in social situations
2. like to interact with other people
3. experience no difficulty in talking with other people
4. tend to be somewhat exhibitionistic and show-offish
5. have strong opinions about many things and are not reluctant to defend them vigorously

Low scores on the Pd3 subscale indicate persons who:

1. experience a great deal of discomfort and anxiety in social situations
2. do not like to meet new people
3. find it difficult to talk in interpersonal situations
4. are socially conforming
5. do not express personal opinions and attitudes openly

Social Alienation (Pd4)

High scores on the Pd4 subscale indicate persons who:

1. feel alienated, isolated, and estranged
2. believe that other people do not understand them
3. feel lonely, unhappy, and unloved
4. feel that they get a raw deal from life
5. blame other people for their problems and shortcomings
6. are concerned about how other people react to them
7. are self-centered and insensitive to the needs and feelings of others
8. act in inconsiderate ways toward other people
9. verbalize regret and remorse for their actions

Low scores on the Pd4 subscale indicate persons who:

1. feel that they belong in their social environments
2. see other people as loving, understanding, and supportive
3. find interpersonal relationships gratifying
4. are not overly influenced by the values and attitudes of others
5. are willing to settle down; find security in routine

APPENDIX F

MAC-R SCALE DESCRIPTIONS

MAC-R Scale Descriptions

High scores on the MAC-R scale suggest the possibility of alcohol or other substance abuse. In general, MAC-R raw scores are categorized as follows:

28 and above	= strongly suggest substance abuse
24-27	= somewhat suggestive of substance abuse
below 24	= strongly contraindicate a substance-abuse problem

In addition to the possibility of substance abuse, high MAC-R scores indicate individuals who:

1. are socially extroverted
2. are exhibitionistic
3. may experience blackouts
4. have difficulties in concentrating
5. may have histories of behavioral problems in school
6. are self-confident and assertive
7. enjoy competition and risk-taking

In addition to suggesting less likelihood of substance abuse than high scores, low MAC-R scores indicate individuals who:

1. are shy and socially introverted
2. are conventional and conforming
3. are lacking in self-confidence

APPENDIX G

MMPI-2 SCALE DESCRIPTIONS

MMPI-2 Scale Descriptions

BRIEF DESCRIPTIONS OF CORRELATES ASSOCIATED WITH ELEVATIONS ON VARIOUS MMPI SCALES

Scale Designation

Correlate

VALIDITY INDICATORS

? Cannot Say score	The total number of items left unanswered or double answered; high scores may reflect confusion, evasiveness, obsessive doubts, reading deficiencies.
L Lie scale	Composed of items dealing with common personal faults usually freely acknowledged; high scores may reflect attempt to present oneself as highly virtuous or in an overly favorable way.
F (In)frequency scale	Composed of items rarely endorsed; high scores may reflect carelessness, confusion, poor cooperation, malingering, symptom exaggeration, or random responding.
K Correction scale	Developed as a suppressor variable for test-taking attitude; high scores may reflect a more subtle defensiveness; low scores suggest unusual openness in self-revelation.

BASIC CLINICAL SCALES

1 Hs Hypochondriasis	High scores may indicate somatic preoccupations and concern over bodily functions, cynicism, defeatist attitudes, and narcissistic complaining.
2 D Depression	High scores may indicate depressive affect, despondency, pessimism, moodiness, or dysphoria.

- | | |
|-----------------------------|---|
| 3 Hy Hysteria | High scores may reflect one or more physical complaints with a psychological component, excessive repression, dependency, naivete, and demonstrativeness. |
| 4 Pd Psychopathic Deviate | High scores reflect a tendency to be at odds with social standards, rebellious, impulsive, hedonistic, with history of difficulties in family life and problems with authority. |
| 5 Mf Masculinity/Femininity | High scores for males reflect sensitivity, passivity, and aesthetic or "feminine" interests. Low scores for males reflect narrow "masculine" interests and pursuits. High scores for females show rebelliousness, aggressiveness, and assertiveness; low scores for females show more passivity and acceptance of traditional role. |
| 6 Pa Paranoia | High scores reflect mistrust of others' motivations, guardedness, and suspiciousness, as well as unwillingness to accept personal criticism or blame. |
| 7 Pt Psychasthenia | High scores indicate anxiety and fears, ruminative preoccupations, obsessions or phobias, rigid personal standards, and extreme self-condemning tendencies. |
| 8 Sc Schizophrenia | High scores reflect strange and unusual thoughts or beliefs, social withdrawal, and self-alienation; in severe cases, bizarre delusions and hallucinations may be present. |
| 9 Ma Hypomania | High scores indicate outgoing, sociable, and overly energetic patterns; tendencies to act impulsively and with poor judgment; tendency to take on too much. |
| 10 Si Social Introversion | High scores suggest social shyness, inhibition, and tendency to be self-effacing; low scores reflect outgoing, sociable, and self-confident patterns. |

SUPPLEMENTARY SCALES

A Anxiety (Welsh)	High scores reveal a lack of poise, tendency to become rattled and upset, overconcern with evaluations, tendency to rationalize, excuse, and avoid criticism.
R Repression (Welsh)	High scores show submissiveness and conventionality, phlegmatic style, and inability to face unpleasant or disagreeable situations.
Es Ego Strength (Barron)	High scores reflect independence, persistence, and initiative, self-confidence, and poise.

CONTENT SCALES (Wiggins)

ORG Organic	High scorers admit to symptoms that are often indicative of organic involvement, ranging widely over various body systems.
HEA Poor Health	High scorers are concerned about their health and have admitted to a variety of gastrointestinal complaints.
DEP Depression	High scorers experience guilt, regret, worry, unhappiness, and a feeling that life has lost its zest.
MOR Poor Morale	High scorers are lacking in self-confidence, feel that they have failed in life, and are given to despair and a tendency to give up hope; they are overly sensitive to criticism.
SOC Social	High scorers are socially bashful, shy, embarrassed, reticent, self-conscious, and extremely reserved.
HOS Manifest Hostility	High scorers admit tendencies to be cross, grouchy, argumentative, and uncooperative, and may also be competitive, aggressive, and retaliatory in interpersonal relationships.

FAM Family Problems

High scorers feel that they have had unpleasant home lives characterized by a lack of love in the family and parents who were unnecessarily critical, nervous, quarrelsome, and quick-tempered.

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