DIFFERENCES IN MENTAL DISORDER DIAGNOSES AMONG INPATIENT
CLIENTS WITH ADJUSTMENT, SUBSTANCE-RELATED, AND
CHILDHOOD DISORDERS ACCORDING TO RACE

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DIFFERENCES IN MENTAL DISORDER DIAGNOSES AMONG INPATIENT
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ABSTRACT

A review of literature in the fields of psychiatry and psychology has consistently shown differential mental disorder diagnoses according to race. Specifically, African Americans were diagnosed more frequently with a more severe mental disorder (e.g., schizophrenia) than Euro-Americans. However, these studies were limited to a narrow range of mental disorders, and only one study to date has examined whether professional counselors diagnose African American clients more often with certain mental disorders than Euro-American clients. This dissertation expanded on prior research in this area by investigating this phenomenon in clients with adjustment, substance-related, and childhood disorders who have been diagnosed by professional counselors. Results of chi square analyses ($N = 899$) revealed that professional counselors diagnosed African American clients with childhood disorders more often than Euro-American clients, whereas Euro-American clients were diagnosed more often than African American clients with an adjustment disorder. Two conceptual pathways related to these findings were discussed, including implications for clinical practice, counselor education and supervision, and future research.
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CHAPTER I

INTRODUCTION

Introduction to the *Diagnostic and Statistical Manual of Mental Disorders*

The current *Diagnostic and Statistical Manual of Mental Disorders* (DSM; American Psychiatric Association [APA], 2000) is arguably the most commonly used text by counselors during assessment and diagnosis of mental disorders. The DSM classification system has been cited as the “gold standard” for diagnosis in mental health practice and is viewed as important for training purposes when teaching pre-professionals how to understand abnormal behavior (Eriksen & Kress, 2005). The DSM was developed for use in clinical, educational, and research settings. According to Mead, Hohenshil, and Singh (1997), the most recent version of DSM is a vital tool for the counseling profession for four primary reasons. First, the DSM provides a common language that facilitates communication among diverse mental health specialists. For example, psychiatrists, psychologists, counselors, social workers, nurses, and occupational therapists use the DSM to collaborate on classifying clients’ presenting concerns. Second, it provides a classification system for diagnosis of mental disorders that can be used regardless of treatment setting. That is, insurance companies can utilize DSM codes for third-party payments, and mental health professionals practicing in agencies, private practice, and hospitals can share a common language for triage purposes. Third, the DSM enhances the selection of
effective treatment procedures by identifying appropriate treatment strategies most likely to be useful in treating specific mental disorders. Fourth, DSM diagnoses provide a foundation for the evaluation of clinical effectiveness when counselors consider whether the symptoms that led to a diagnosis have been reduced or the client’s overall functioning is improving.

Another benefit of current DSM diagnoses is that it contains face validity (Eriksen & Kress, 2005). That is, the DSM reduces complex clinical information into a simpler way of understanding client concerns. Diagnosticians can use this information to compare various treatment approaches to particular psychosocial problems (Eriksen & Kress, 2005). For example, researchers can now evaluate counseling in general or the effectiveness of certain types of treatment strategies related to the specific DSM disorders. Moreover, DSM diagnoses can assist diagnosticians in recognizing those clients whose concerns are beyond the clinician’s areas of competence (Seligman, 1990). Objective identification and classification of mental and emotional impairments is thus proclaimed to be one the most important attributes of DSM.

First published in 1952, the DSM (APA, 1952) was developed as a means of standardizing assessment and evaluation of clientele across mental health professions (APA, 2000). This edition and DSM-II published in 1968 (APA, 1968) were both short volumes that provided a brief listing of psychiatric disorders. The first two volumes were an attempt to apply diagnostic standards for psychological problems (Beutler & Malik, 2002), but criteria were founded primarily on psychoanalytic conceptualizations of clientele and their resultant psychosocial problems. Therefore, the first two editions were criticized for their low reliability and low validity regarding objective client evaluations.
(Kirk & Kutchins, 1992). That is, each disorder did not contain sufficient evaluation criteria acceptable by various mental health professions. The result was low levels of agreement among diagnosticians’ clinical opinions when diagnosing the same client. Since one of the primary purposes of the manual was to promote interdisciplinary communication about standardized criteria for mental disorders (APA, 2000), updated versions of DSM were necessary.

The third edition of DSM (APA, 1980) was created to increase its reliability, validity, and ability to assess client’s racial characteristics. It attempted to reach these goals by establishing a more clearly described approach to assigning diagnoses and by more firmly associating diagnoses with empirical research findings (Beutler & Malik, 2002). This edition also marked the first use of a multi-axial system wherein clients were diagnosed along five axes (e.g., Axis I, clinical disorders). Moreover, the DSM-III-R (APA, 1987) incorporated the Structural Clinical Interview for DSM (SCID; Spitzer, 1983) with the expectation that it would increase the reliability of diagnoses by providing standardized ways of accumulating information about clients’ symptoms. The current edition of classifying mental disorders is the DSM-IV-TR (APA, 2000). Based on criteria previously published in DSM-IV (APA, 1994), this text revision has expanded the role of important associated features of mental disorders (i.e., beyond simple diagnostic criteria). For example, DSM-IV-TR has updated information about statistics and clinical features of age, gender, familial patterns, and pathophysiology as they relate to diagnostic criteria. One of the newest and most notable additions to DSM-IV-TR is information about culture and mental disorder diagnoses.
Yet despite the many benefits of the DSM, it has many limitations that should be addressed. The DSM has been criticized for its reliance on a categorical approach to diagnosis which individuals are determined to either have or to not have a particular disorder (Beutler & Malik, 2002; Houts, 2002). That is, an assignment to a particular diagnosis is determined by whether or not a client meets a certain number of criteria. Although this categorical approach was intended to enhance objectivity of diagnoses, some authors argue that it may lead to ‘false positives’ in that some clients are diagnosed with mental disorders when they do not manifest extreme personal distress or social and occupational impairments (Eriksen & Kress, 2005). One major reason for clinicians’ misdiagnosis of mental disorders is the subjective judgment involved in making an all-or-none decision about another individual’s mental health status. DSM acknowledges this limitation, and it explains that diagnostic decisions should be made cautiously for persons from different racial backgrounds because it may further increase potential misidentification of mental disorders (APA, 2000).

Race, Diagnosis, and the Diagnostic and Statistical Manual of Mental Disorders

A major criticism of earlier editions of the DSM was the lack of cultural sensitivity to persons of color (Bhugra & Bhui, 1999; Cermele, Daniels, & Anderson, 2001). For example, Smart and Smart (1997) reported that the DSM-III (APA, 1980) and DSM-III-R (APA, 1987) offered very little in terms of ideas or suggestions for including cultural factors in the diagnostic process. Kirk and Kutchin (1992) explained that no racial minorities were members of the DSM-III task force for developing the diagnostic criteria, or at any other time before that. Furthermore, the DSM-III-R showed minimal improvement in sensitivity toward cultural issues in diagnostic procedures, though
acknowledgement of cultural disparities was noted in an introductory subsection titled “Caution in the use of DSM-III-R” (Kirk & Kutchin, 1992).

Due in part to criticisms that DSM-III and DSM-III-R were insensitive to individuals of different racial backgrounds, in 1991 the National Institute of Mental Health supported the creation of a group on culture and diagnosis to provide recommendations for advancing the next version of DSM (Lewis-Fernandez & Diaz, 2002). The main goal of this work group was to advise the DSM-IV task force on how to make culture more central to the manual. One resultant recommendation was to add an additional axis (presumably Axis VI) titled “Cultural Axis.” However, this strategy was abandoned because of lack of empirical support and questionable clinical significance (Lewis-Fernandez & Diaz, 2002).

Compared to earlier editions, DSM-IV did show some improvement in the inclusion of information supporting cultural differences in diagnosis (Smart & Smart, 1997). Five new areas of cultural specific information were included in the DSM-IV. According to Smart and Smart (1997), the five new areas were: (1) descriptions of specific cultural features that may be present in different types of disorders; (2) a glossary of 25 culture-bound syndromes in an index toward the back of the manual, (3) an outline of cultural formulations intended to help counselors evaluate clients from different cultural backgrounds, (4) a broader definition of Axis IV (psychosocial and environmental problems) to include life issues that may be the result of culture-bound problems, and (5) the addition of new culturally sensitive conditions in the subsection “Other conditions that may be a focus of clinical attention” (such as V62.4-Acculturation Problem and 313.82-Identity Problem) (APA, 1994).
Though these were improvements over previous versions of the DSM, the DSM-IV still lacked significant information directly related to diverse diagnostic criteria, skills, and differences in symptomatology. That is, incorporation of more specific diagnosis-related information recommended by the 1991 work group created to assist the task force on the development of the DSM-IV was not followed (Alarcon, 1995). Lewis-Fernandez and Kleinman (1995) explained that the final version of the DSM-IV only included a very small proportion of the work group’s recommendations on diagnostic practices of different ethnic groups, stating that this supports the lack of cultural sensitivity in that edition of the DSM. Perhaps as a result of this shortcoming, and because multicultural sensitivity has recently come to the forefront of the mental health field (Sue, 1998, 2006), the DSM-IV-TR (APA, 2000) now includes two new types of information specifically related to cultural diagnostic considerations: (1) an in-text discussion of cultural variations in the clinical presentation of various mental disorders, and (2) an outline of cultural formulations designed to assist clinicians in systematically evaluating and reporting the impact of an individual’s cultural context on presenting concerns (i.e., Appendix I). However, one of the most commonly cited limitations of the DSM continues to be its ineffectiveness in diagnosing individuals from different racial backgrounds (Kirk & Kutchins, 1992; Lewis-Fernandez & Diaz, 2002; Smart & Smart, 1997). Thus, culturally accurate diagnoses are extremely important in the clinical decision-making process when assessing individuals from diverse lifestyles.
Since clients’ presenting symptomatology is often complex, and clinical diagnoses ultimately have a subjective component, clinicians may sometimes diagnose mental disorders inaccurately (Bell & Mehta, 1980). Incorrect diagnoses can lead to negative consequences for clients themselves (e.g., loss of freedom), the mental health field (e.g., mistrust), the counseling profession in particular (e.g., loss of credibility), and society in general (e.g., inaccurate research findings affecting prevalence rates of mental disorders and misdirection of funds). Recent research has shown that different rates of certain diagnoses may be particularly more common among persons of color. Although the reasons for this phenomenon are speculative, one possibility asserted by some authors is diagnostic bias (Feisthamel & Schwartz, 2006; Sohler & Bromet, 2003). Thus, there may be a potential for diagnostic bias when the DSM is used with diverse clients.

One example of this trend is that previous research has shown higher rates of impairing diagnoses among African Americans compared to Euro-Americans. Baker and Bell (1999) reported that one of the primary causes for admission and treatment disparities among Euro-American and African American clients could be higher rates of more severe mental disorder diagnoses (e.g., schizophrenia) for African American clients. Snowden and Cheung (1990) reported that African Americans are more likely to be diagnosed with schizophrenia than Euro-Americans, and that these clients have a reduced probability of being diagnosed with a mood disorder. Neighbors, Trierweiler, Ford, and Mufoff (2003) echo that notion, reporting higher frequencies of schizophrenia in African Americans while mood disorders are diagnosed more often in Euro-Americans.
Strakowski et al. (1995) randomly examined the clinical charts of 490 clients who were selected from a psychiatric emergency service database. African American clients were more likely to have received a diagnosis of schizophrenia than Euro-American clients.

Foulks (2004) suggested that Euro-Americans and Asian Americans more often receive a mood disorder diagnosis than African Americans or Hispanic persons, and that African Americans and Asian Americans obtain a psychotic disorder diagnosis more often than Euro-Americans. Moreover, Lawson, Hepler, Holladay, and Cuffel (1994) reported that African Americans are more likely than Euro-Americans to be hospitalized in public psychiatric units and are more likely to be involuntarily committed. Among the involuntarily committed inpatients, of particular note is the fact that African Americans constituted nearly half of those with a diagnosis of schizophrenia (48%), but they constituted only 16% of the patient population (Lawson et al., 1994). One study examining Mexican Americans and Euro-Americans using DSM-III criteria found racial differences in diagnoses (Flaskerud & Hu, 1992). That is, higher rates of psychoneurotic disorders were found in Mexican Americans than in Euro-Americans. Aldwin and Greenberger (1987) examined depression among Asian Americans and Euro-Americans and found that depression was diagnosed more often in Asian American clients. In the most recent study found to date on diagnoses and race, Schwartz and Feisthamel (in press) reported that licensed professional counselors diagnosed psychotic (schizophrenia, schizoaffective disorder) and childhood disorders (e.g., conduct disorder, attention-deficit hyperactivity disorder, and oppositional defiant disorder) more often in African Americans than Euro-Americans.
Such findings have produced serious concerns about the accuracy of clinical diagnoses, especially among clinicians whose cultural backgrounds differ from those of their clients. Typically, a mood disorder diagnosis requires less invasive treatment and has a better outcome than a psychotic disorder. Thus, mood disorder diagnoses may be regarded clinically as a more careful or cautious diagnosis (Feisthamel & Schwartz, 2006). Some researchers have suggested that the higher frequency of schizophrenia among African American clients might be related to diagnosticians misinterpreting common experiences frequently seen in depression with these clients (Baker & Bell, 1999). However, several investigators using dissimilar methods and instruments have found no difference between African American and Euro-American subjects in rates of depression, schizophrenia, anxiety, and personality disorders (Vernon & Roberts, 1982).

Statement of the Problem and Need for the Study

Although a literature review has revealed that research studies on diagnosis and culture have been increasing, the vast majority of previous research in this area has examined the impact of race on only two primary DSM diagnoses, schizophrenia and mood disorders (Baker & Bell, 1999; Foulk, 2004; Lawson et al., 1994; Thomas, Stone, Osborn, Thomas, & Fisher, 1993). Although it would likely be impossible to collect reliable data on the proportions of all DSM diagnoses made in persons of different races, many common and disabling conditions have largely been ignored by prior researchers. For example, only one study found to date on psychiatric hospitalizations attempted to investigate whether substance-related disorders are diagnosed more often in non-Euro-American clients (Flaskerud & Hu, 1992). And this study used outdated diagnostic criteria, leading to speculation about the accuracy of the results. Baker and Bell (1999)
reported that the prevalence of anxiety disorders among African Americans versus Euro-Americans has not been well studied. Only one study to date has empirically studied whether persons of color are diagnosed more frequently with childhood disorders than Euro-Americans. These authors found that Oppositional Defiant Disorder, Conduct Disorder, and Attention Deficit-Hyperactivity Disorder are in fact diagnosed more often in African American clients. However, as the authors explain, additional research on this diagnostic category is clearly warranted (Schwartz & Feisthamel, in press).

A second limitation of prior research in this area was that the vast majority of studies employed psychiatrists as the diagnosticians. Although psychiatrists receive advanced training in assessment and diagnosis of mental disorders, they may or may not receive adequate education on multicultural clinical techniques. Moreover, it is difficult to accurately generalize these results for use by counselor educators or professional counselors because of the counseling profession’s unique training curriculum and professional identity (Council for Accreditation of Counseling and Related Educational Programs [CACREP], 2001). In fact, only one study to date has evaluated counselors’ diagnostic decision-making and how it is affected by client race (Schwartz & Feisthamel, in press). Because the American Counseling Association’s Code of Ethics (American Counseling Association [ACA], 2005) specifically stresses the importance of proper diagnosis (section E.5.a), cultural sensitivity in diagnosing mental disorders (section E.5.b.), and the historical and social roots of prejudice related to diagnosis (section E.5.c), counseling-related research should be expanded in this area. In order to advance counselor training and supervision, additional empirical research on counseling
professionals’ diagnostic practices is clearly needed (Feisthamel, Schwartz & Kress-White, 2005).

Next, for various reasons (including the fact that some prior studies were conducted before 1994), most research on racial diagnoses employed older versions of the DSM (Adebimpe, 1994; Flaskerud & Hu, 1992; Harvey, Williams, McGuffin, & Toone, 1990; Richardson, Anderson, Flaherty, & Bell, 2003; Sohler & Bromet, 2003; Thomas et al., 1993; Zhang & Snowden, 1999). The byproduct of this circumstance is that less empirically validated (and often less stringent) diagnostic criteria were utilized by clinicians in these research studies. For example, Neighbors et al (2003) revealed several limitations in their own study examining racial differences in DSM diagnoses, including using DSM-III-R diagnostic criteria (even though DSM-IV criteria were available). Since the DSM and its diagnostic criteria have evolved after years of empirical research and professional consultation, and since it is important for educators and clinicians to speak a ‘common language’ with regard to what defines a particular mental disorder, additional studies using DSM-IV-TR (APA, 2000) diagnostic criteria are needed.

A fourth limitation of previous research on diagnoses and race involved the methodological weakness of using small sample sizes. Small sample size can reduce statistical power and limit the external validity of results. Although it may be difficult to obtain large and diverse sample populations of clients with specific DSM diagnoses, sample size is a highly important factor when designing research studies (Pedhazur & Schmelkin, 1991). For example, Takei, Persaud, Woodruff, Brockington, and Murray (1998) and Ridley (1984) reported a sample size of 88 and 40 participants respectively,
making their results difficult to generalize. Thus, small sample sizes may decrease the probability of extending significant findings to the greater population.

Another limitation inherent was that the majority of previous research in this area used unsophisticated or incomplete data analyses. For example, few studies reported effect sizes when describing statistical results (Adebimpe, 1994; Harvey et al., 1990; Takei et al., 1998). Effect sizes are important in understanding the clinical significance of reported results (Rosnow & Rosenthal, 1996; Thompson, 2002). Effect sizes are used in empirical research when referring to the magnitude of effects, their meaningfulness, and their importance (Pedhazur & Schmelkin, 1991). Moreover, the fifth edition of the American Psychiatric Association’s *Publication Manual* (2001) reports that it is “almost necessary to include some index of effect size or strength of relationship in your Results section” (p. 25). Thus, although some researchers have shown statistically significant results indicating that clients of color are often diagnosed more often with certain mental disorders, the strength of these findings often cannot be interpreted.

If more information was known about diagnostic practices among counselors, and whether counselors diagnose DSM disorders more often among persons of color, then multicultural sensitivity could be enhanced. In addition, with more specific training on race and diagnosis, counselors would be less likely to violate ACA Codes of Ethics (2005) related to diagnostic sensitivity and refraining from diagnoses if one believes it would cause harm to the client (section E.5.d). Furthermore, more research on different diagnostic groups is needed. Therefore, it is vital that we have additional empirical data on this phenomenon, especially related to counseling trainees and professionals. If results of future research do in fact point to differential diagnoses according to race, then
diagnostic bias could be investigated further. This information could lead to including this phenomenon and related counseling skills in introductory counseling textbooks. It could also help to promote more specific avenues for incorporating cultural sensitivity into the next edition of DSM itself.

More objective and accurate diagnoses of persons of color may also be important for enhancing the reputation of the mental health field. Persons of color may be more likely to seek mental health services if they believe they can trust the objectivity of professionals' decision-making. As a result, stigma related to seeking a helping professional may be reduced for these individuals (U.S. Surgeon General Report, 2001). Finally, third party payors (i.e., managed care organizations) may be more likely to reimburse counselors for services if they had empirical evidence that clinical diagnoses were accurate and free from subjective or racial bias. For example, Mead et al. (1997) reported that billing and third party reimbursement was rated as highly important for counseling professionals, and that DSM-related diagnoses are a vital part of the reimbursement process. If counselors can gain increased credibility as reliable diagnosticians, it could increase third party payors’ acceptance of the counseling profession.

Overview of Differential Diagnoses According to Race Related to Researcher’s Experience With Diagnosis and Race

Through my experience as a teaching assistant for the DSM and Introduction to Community Counseling course, positive feedback from national and state conferences, and previous research and publications in this area have shown me that research on DSM diagnoses and persons of color is significant to the counseling profession. That is,
counseling professionals have suggested that this is an important topic and more information on DSM diagnoses and race is certainly needed.

In the DSM itself, little information is available in terms of race and diagnosis. I remember lecturing on childhood disorders, while only briefly reviewing cultural awareness (in terms of assigning diagnostic criteria to individuals of color) because of the limited information found on this topic. Thus, very little time is typically devoted to the cultural accuracy of DSM diagnoses. Because of the lack of empirical information regarding race and diagnoses with counselors, I knew I felt a strong need to research this topic further.

A strong drive to pursue this research topic even further was reinforced through numerous professional presentations. I had the opportunity to present at the All Ohio Counselors Conference in November of 2005 with Dr. Robert Schwartz and Dr. Vicki White Kress on “Practical Skills for Unbiased Diagnosis of Persons of Color.” At the conclusion of our presentation we received encouraging comments from many mental health professionals on the importance of this topic and how unaware the profession is on these issues. Furthermore, Dr. Schwartz and I presented a poster session at the American Counseling Association’s Annual Conference in March of 2006 in Montreal, Canada, titled, “Research on Racial Bias Among Caucasian and African American Clients.” Responses were extremely encouraging and there were several counseling professionals who stated that more research and more diagnostic areas are definitely needed. Thus, I took this opportunity to pursue this topic further.

I was presented with an opportunity to do research related to this topic a couple of years ago. When I first analyzed the data set and collaborated with Dr. Schwartz, some
interesting results occurred: Differences in DSM diagnoses according to race. Thus began my empirical literature review on all the mental health fields related to this topic. However, no research was found focusing on professional counselors. Thus, an article will be published shortly in the *Journal of Counseling Development*, the first to date, related to race and DSM diagnoses with professional counselors. Furthermore, I have published an article in the *Annals of the American Psychotherapy Association* related to racial bias and diagnoses and have really grasped this area and wanted to investigate more diagnoses. As research has shown, only 4-5 diagnoses have been examined with regards to race and diagnoses. Therefore, I am very passionate about this topic as seen through my professional development as a teaching assistant, presentations at national, state, and local conferences and previous research in this area that has been published. One main reason why I am passionate about this topic includes counselors becoming more culturally aware of a society that is always changing. Such that, counselors need to be equipped with the necessary multicultural skills to adequately treat clients from different races. Therefore, through my education and research regarding this area, additional training for counselors is vital.

**Purpose of the Study**

The purpose of this study was to investigate how client race affects mental disorder diagnoses among inpatient clients. Specifically, the researcher examined whether counselors diagnose adjustment, substance-related, and childhood disorders more often in African American versus Euro-American inpatient clients. If significant differences in rates of diagnoses are found for persons from different racial backgrounds, the following implications may be expected:
• Awareness of differences in diagnostic frequencies may increase among counselor educators, professional counselors, and counselor-trainees.

• Additional research on differential diagnoses may be prompted for more diverse and rare forms of mental disorders.

• Additional information may be provided regarding prevalence rates of specific mental disorders related to clients with different racial backgrounds.

General Research Questions
This study attempted to answer the following research questions:

• Do counselors diagnose adjustment disorders more often in African American versus Euro-American clients?

• Do counselors diagnose substance-related disorders more often in African American versus Euro-American clients?

• Do counselors diagnose childhood disorders more often in African American versus Euro-American clients?

Definition of Terms
The most frequently used terms of this study are discussed and defined within this section. These words and phrases may help to provide a better understanding of the terms used in this research study.

Adjustment Disorders: A category of mental disorders, listed in the DSM-IV-TR (2000), that include a psychological response to an identifiable stressor or stressors that results in clinically significant emotional or behavioral symptoms. In this study Adjustment Disorders will specifically include the following subtypes of Adjustment: With Depressed Mood, With Anxiety, With Mixed Anxiety and Depressed Mood, With
Disturbance of Conduct, With Mixed Disturbance of Emotions and Conduct, and Unspecified.

African American: An individual of African (and especially of Black African) descent who self-identifies as belonging to the African American race (Merriam-Webster, 2006).

Afro-Caribbean: Non-U.S. researchers on differential diagnoses and race provide this term with respect to classifying persons of color (e.g., Takei et al., 1998).

Childhood Disorders: A broad category of mental disorders, listed in the DSM-IV-TR (2000), that include cognitive, learning, and behavioral symptomatology that usually first manifest in childhood or adolescence and that are primary features of the client’s presenting concerns. In this study Childhood Disorders will specifically include the following mental disorders: Conduct Disorder, Oppositional Defiant Disorder, and Attention-Deficit-Hyperactivity Disorder.

Counselor: An individual who has obtained a graduate degree in counseling (i.e., community counseling, counselor education, marriage and family counseling, mental health counseling, or school counseling), has passed a mandated state counseling examination, and has fulfilled all other requirements to practice counseling in a particular state. This term does not refer to a licensed psychologist, psychiatrist, social worker, or psychiatric nurse, and is synonymous with the term Professional Counselor.

Diagnosis: The act of identifying a mental disorder, as defined by the DSM, and categorizing the signs and symptoms into one discrete and identifiable construct.
Diagnostic Bias: Defined according to Sinecore-Guinn (1995) as an error in judgment that mental health professionals make when they collect and interpret information.

Diagnostic Statistical Manual of Mental Disorders (DSM): A book, published by the American Psychiatric Association, that attempts to classify all known psychological disorders according to specifically outlined criteria. The DSM is generally used by mental health professionals to determine client diagnoses and to determine what does or does not constitute a mental disorder.

Differential Diagnosis: Proportionately unequal numbers of certain DSM diagnoses for some individuals versus other dissimilar individuals.

Euro-American: An individual of European descent who does not self-identify as African American, Asian American, Hispanic American or Native American (Merriam-Webster, 2006).

Inpatient Client: A client who has been admitted to an inpatient treatment setting because of a psychological disturbance that leads to potential for self-harm or harm to others.

Mental Disorder: The DSM-IV-TR (2000, p. xxx) defines a mental disorder as any clinically significant behavioral or psychological syndrome characterized by the presence of distressing symptoms, impairment of functioning, or significantly increased risk of suffering death, pain, disability, or loss of freedom. Mental disorders are assumed to be the manifestation of a behavioral, psychological, or biological dysfunction in the individual.
Mental Health Professional: A broad term used for a professional who is trained in understanding human behavior, emotions, or how the mind works. Mental health professionals as defined here are trained in and legally able to treat mental disorders. Examples of mental health professionals include counselors, psychologists, psychiatrists, or social workers.

Race: A class or kind of persons unified by shared interests, habits, or characteristics (Merriam-Webster, 2006).

Substance-Related Disorders: A category of mental disorders, listed in the DSM-IV-TR (2000), that include states of intoxication, withdrawal, abuse, or dependence related to specific psychoactive substances as primary features of the client’s presenting concerns. In this study Substance-Related Disorders will specifically include the following mental disorders: Substance Abuse and Substance Dependence.

Overview of the Remainder of the Study

Chapter II includes a review of literature related to the differential diagnosis of mental disorders according to culture and race. This review includes a comparison and critique of research by all mental health professionals found to date. Furthermore, a theoretical rationale for this study is provided. Chapter III describes the methodology of this study, including the general research design, null and directional hypotheses, participants, instruments, and data analyses. Chapter IV provides the results of statistical analyses used in this study, including descriptive and inferential statistics utilized to test the statistical hypotheses outlined in Chapter III. Finally, Chapter V includes a conclusion and summary of the statistical results found, a comparison of these results to those of previous research studies in this area, and a discussion of the results related to the
proposed theoretical background. Implications of results for counselor education, practice, and future research are also discussed.
CHAPTER II
REVIEW OF THE RELATED LITERATURE

Overview of Race and Limitations of DSM Diagnoses

Eriksen and Kress (2005) described several challenges with regards to DSM diagnoses. For instance, DSM diagnoses fail to reliably predict treatment outcomes, they encourage understanding of only highly specific forms of psychopathology, they can lead individuals to accept that their situation is hopeless and that they are “sick,” they fail to include a full understanding of contextual factors that may impact clients’ symptoms, and they may stigmatize and thus hurt those who are different from the mainstream population. However, one of the most commonly cited limitations of the DSM is its lack of efficacy with diverse cultural diagnosis (Cermele et al., 2001; Duffy, Gillig, Tureen, & Ybarra, 2002). For example, Eriksen and Kress (2005) questioned the relevance of the DSM diagnostic system for individuals who differ from the dominant culture, such as with persons of color. For these authors a primary concern about the DSM is that it relies on the objectivity (or lack thereof) among those who decide what abnormal behavior is. It is hoped that these concerns may lead to a clearer understanding of multicultural issues related to DSM diagnoses. Ultimately, accurate diagnoses are extremely important in the clinical decision-making process when assessing individuals from diverse cultures because they impact counselors’ perceptions, clients’ treatments, and the legitimacy of the profession.
The DSM-III-R showed minimal improvements in cultural sensitivity related to the diagnostic decision-making process. But it did add an acknowledgement of cultural differences in syptomatology of mental disorders, reported in the section “Caution in the Use of the DSM-III-R” (Smart & Smart, 1997). Mental health professionals were advised to take special consideration when “diagnostic criteria are used to evaluate a person from an ethnic or cultural group different from that of the clinician’s” (APA, 1994, p. xxvi).

Compared to previous editions of the DSM, DSM-IV-TR (APA, 1994) shows better inclusion of information about and procedures for racial diagnosis. That is, the “Specific Culture, Age, and Gender Features” section (p. 9) provides some guidance for the clinician concerning variations in the presentation of disorders that may be attributable to the individual’s culture setting. Furthermore, “Appendix I: Outline for Cultural Formulation and Glossary of Culture-Bound Syndromes” notes that

this appendix is divided into two sections. The first section provides an outline or cultural formulation designed to assist the clinician in systematically evaluating and reporting the impact of the individual’s cultural context. The second is a glossary of culture-bound syndromes. (p. 12)

A few examples of cultural considerations highlighted in Appendix I are the individual’s cultural identity, cultural explanations of the individual’s illness, and cultural elements of the relationship between the individual and the clinician (e.g., difference between culture and social status of the clinician and client) (pp. 897-898). Therefore, the DSM-IV-TR makes an acknowledgement that cultural specific variations are important and makes users of the DSM, specifically mental health clinicians, aware of considering these factors during the diagnostic process.
A primary concern of the DSM is the lack of cultural sensitivity to persons of color (Bhugra & Bhui, 1999). That is, the DSM-IV lacks significant information directly related to diverse diagnostic criteria, skills, and differences in symptomatology. For example, diagnosticians may stereotype certain cultures because of the lack of cultural awareness. Thus, due to the subjectivity of the diagnostic process and its categorical approach in diagnosing, clinicians need to be competent in assessing individuals from different cultures.

Overview of Differential Diagnoses According to Race

A review of the literature consistently showed differences in rates of certain DSM diagnoses among African American versus Euro-American clients. For instance, some research has shown that Euro-Americans are likely to receive a less severe or stigmatizing DSM diagnosis than African Americans. One of the most frequently reported findings was the higher rates of a psychotic disorder diagnoses (e.g., schizophrenia) among African American clients. Many studies have examined this phenomenon among African Americans (Adebimpe, 1994; Adebimpe, Chu, Klein, & Lange, 1982; Baker & Bell, 1999; Chow, Jaffee, & Snowden, 2003; Flascherud & Hu, 1992; Jones & Gray, 1986; Lawson et al., 1994; Neighbors, 1984; Schwartz & Feisthamel, in press; Snowden & Cheung, 1990) and Afro-Caribbeans from the United Kingdom (Harvey et al., 1990; Takei et al., 1998; Thomas et al., 1993). This phenomenon has been shown to occur regardless of client age. For example, Kales et al. (2000) report that elderly African Americans have higher rates of dementia and psychotic-related diagnoses and lower frequencies of depression-related diagnoses compared to Euro-Americans. Therefore, mounting research has shown that individuals from a variety of
nationalities are diagnosed with more severe mental disorders if they are of African
decent than if they are of European decent.

Review of Empirical Literature Related to Differential Diagnosis
of Mental Disorders and Race

Although there are 297 distinct DSM-IV-TR mental disorder diagnoses (APA, 2000), only a small fraction of these have been studied regarding whether or not race affects clinicians’ diagnostic decisions. Prior researchers have primarily studied whether psychotic and mood disorders are diagnosed more often in regards to race. Empirical research related to differential diagnosis and race is summarized here.

As mentioned previously, one consistent finding in the literature was that psychotic disorders are diagnosed more often in African American clients than Euro-American clients. For example, early research revealed that African Americans who reported visual hallucinations and paranoid ideation were diagnosed more frequently as having schizophrenia compared to non-African American persons (Cannon & Locke, 1977). Lawson et al. (1994) compared clients who were admitted to a psychiatric inpatient unit using census data from the years 1984 and 1990 according to the State of Tennessee to examine racial differences in diagnostic categories such as schizophrenia, substance-related disorders (e.g., specific disorders were not identified), and mood disorders. The sample consisted of over 11,000 clients. Approximately 30% of participants were African American. Analyses from the test of different proportions showed that African Americans were considerably overrepresented among those with a diagnosis of schizophrenia and underrepresented among those with a diagnosis of a mood disorder. No racial differences were found in the diagnosis of substance-related disorders.
Although African Americans were only 16% of the population, they made up 48% of inpatients and 37% of outpatients who were diagnosed with schizophrenia.

Flaskerud and Hu (1992) examined racial disparities in the diagnosis of 26,400 inpatient and outpatient clients seen in Los Angeles County mental health facilities between 1983 and 1988. Diagnosticians included psychiatric social workers (34%), psychiatrists (26%), psychiatric nurses (13%), psychologists (13%), and medical residents using DSM-II diagnostic criteria. Results of chi square analyses showed that the probability of receiving a psychotic disorder diagnosis was substantially higher for African Americans and Asian Americans than Euro-Americans. Strakowski, Shelton, and Kolbrener (1993) investigated 173 charts of individuals considered to be psychotic using DSM-III-R criteria (APA, 1987). Results supported previous research in that African Americans were significantly more likely to be diagnosed with schizophrenia than Euro-Americans.

Strakowski et al. (1996) examined 330 clients using DSM-III-R criteria as part of the DSM-IV field trial for schizophrenia and other psychotic disorders using a structured rating instrument in observing diagnostic difference among race. Forty diagnosticians (34 Euro-American, 2 Hispanic, 2 Middle Eastern, and 2 Asian) included psychiatrists (N = 25), psychologists (N = 4), and master’s and bachelor degree research assistants (N = 11). Chi Square analyses showed that African American clients were more likely than Euro-American clients to receive a DSM-III-R diagnosis of schizophrenia and less likely to be diagnosed with a mood disorder (e.g., depression).

In addition, Strakowski et al. (1995) investigated 490 clients from a psychiatric emergency service facility. Results suggest that African Americans were significantly
more likely to receive a diagnosis of schizophrenia than Euro-Americans. Harvey et al. (1990) followed 103 consecutive clients from King’s college hospital in the United Kingdom for clinical differences in course of illness and pattern of symptoms. The sample consisted of 54 Afro-Caribbean’s and 49 Euro-American clients ranging in age from 15-69 years. Diagnoses examined were schizophrenia, schizoaffective disorder, bipolar disorder, major depressive disorder, and unspecified psychosis. Results of chi square analyses using DSM-III criteria showed that Afro-Caribbeans were more often diagnosed with a form of psychosis (e.g., schizophrenia, schizoaffective disorder, or unspecified psychosis) than Euro-American clients. The fact that more African American clients were diagnosed with psychotic disorder may have resulted in higher rates of inpatient admissions among these clients as well. In fact, the authors found that even when considering the same diagnosis (e.g., schizophrenia) male African American clients had a 2.4 times higher admission rate than Euro-American clientele.

Snowden and Cheung (1990) reviewed the national data of 1980 psychiatric inpatient admission rates per 100,000 citizens. Diagnoses examined included schizophrenia, affective disorders, alcohol-related disorders, and drug-related disorders. Races studied included Euro-American, African American, Hispanic, and Other. Results showed that for all types of inpatient facilities, schizophrenia was diagnosed more frequently among African Americans than among Euro-Americans. The rate of schizophrenia was sometimes almost twice as great among African Americans compared to Euro-Americans. Thomas et al. (1993) investigated the records of all acute psychiatric admissions between 1984 and 1987 from Central Manchester in the United Kingdom. The sample consisted of 1,534 clients with schizophrenia, manic-depression, or ‘other’
(e.g., not schizophrenia or manic depression) diagnoses under the age of 65 from three
groups of people including Euro-Americans, Afro-Caribbeans, and Asian Americans.
Similar to previous research findings, these authors reported that Afro-Caribbeans and
Asian Americans were overrepresented in terms of schizophrenia diagnoses compared
with Euro-Americans.

Takei et al. (1998) investigated 88 clients from the Camberwell area of the United
Kingdom with schizophrenia and/or affective disorder diagnoses between 1973 and 1974
(34 Afro-Caribbeans and 54 Euro-American clients) who were first admitted to a hospital
with functional psychosis. Results of chi square analyses revealed that Afro-Caribbean
clients who were diagnosed with schizophrenia were 13 times more likely to encounter
forced admissions and more extended periods of hospitalizations. Perhaps for this reason
Adebimpe (1981) cautioned mental health professionals against making the diagnosis of
schizophrenia in African American clients based primarily upon symptoms also seen in
mania, severe depression, chronic alcoholism, or acute organic brain syndromes.

Blow et al. (2004) examined data from the 1999 National Psychosis Registry of
134,523 veterans between 1998 and 1999 who were diagnosed with schizophrenia,
schizoaffective disorder, or bipolar disorder. Results of logistic regression and odds ratios
revealed that a higher percentage of minority veterans received a diagnosis of
schizophrenia compared to Euro-American veterans. In addition, Schwartz and
Feisthamel (in press) examined 1,648 clients with either psychotic disorders, mood
disorders, or childhood disorders from a 10-county community mental health agency in a
Southeastern state. Diagnosticians included licensed profession counselors who were
trained in diagnostic assessment of mental disorders. Results of chi square analyses
showed that African Americans were more likely than Euro-Americans to receive a psychotic disorder diagnosis. Consistent with prior research in this area, counselors diagnosed African Americans with psychotic disorders at a higher probability than what would be expected if race did not influence diagnostic choices.

Kales et al. (2000) evaluated the impact of race on mental health in health care utilization among 23,718 older veterans in 1993 to 1994 of the Department of Veteran Affairs inpatient facilities using DSM-III-R criteria with diagnoses of cognitive disorders, mood disorders, psychotic disorders, substance-related disorders, and anxiety disorders. Results of chi square analyses showed African American clients with psychotic disorders had fewer outpatient visits than Euro-American clients. Moreover, African American clients with substance-related disorders had significantly more psychiatric visits than Euro-American clients.

On the other hand, Sohler and Bromet (2003) studied 523 clients with schizophrenia or mood disorder diagnoses according to DSM-III-R criteria. Participants included all clients admitted to the 12 inpatient facilities in Suffolk county between 1989 and 1995. Results of chi square analyses showed that there was no difference in the assignment of schizophrenia and affective disorders according to race. Echoing this notion was Zhang and Snowden (1999) who examined the ethnic ratios of 16 DSM-III mental disorders including schizophrenia, affective disorders, anxiety disorders, and substance use disorders among Euro-American, African American, Hispanic, and Asian Americans. Participants included 18,152 residents. Results of chi square tests of independence revealed that African Americans were not significantly more likely than Euro-Americans to be diagnosed with schizophrenia.
Another consistent finding in the literature is that mood disorders are much less frequently diagnosed among African-American clients than Euro-American clients. Previous research has consistently shown that mood disorders are as overdiagnosed among Euro-Americans as psychotic disorders (e.g., schizophrenia) are overdiagnosed among African Americans (Adebimpe, 1994; Snowden & Cheung, 1990). For example, Flaskerud and Hu (1992) investigated 26,400 adult inpatient and outpatient clients seen in county mental health facilities between 1983 and 1988. Chi square analyses showed that African American inpatients had lower rates of mood disorder diagnoses than Euro-American inpatients. Moreover, higher rates of both depression and psychosis were found with individuals who were Asian rather than Euro-American clients.

Snowden and Cheung (1990) reviewed the national data of 1980 admission rates per 100,000 civilian populations and found that affective disorders were overrepresented in Euro-Americans compared to African Americans. That is, results revealed that Euro-Americans were almost two times more likely to receive an affective disorder diagnosis compared to African Americans. Moreover, Zhang and Snowden (1999) examined the ethnic ratios of 16 DSM-III mental disorders including affective disorders among Euro-American, African American, Hispanic, and Asian Americans. Participants included 18,152 residents. Results of chi square tests of independence revealed that African Americans were significantly less likely than Euro-Americans to be diagnosed with an affective disorder (e.g., major depression).

Furthermore, Lawson et al. (1994) found that mood disorder diagnoses were overrepresented in Euro-American clients compared to African American clients in examining data from over 11,000 clients from 1984 and 1990. Fabrega (1996) also noted
a lower proportion of African Americans with mood disorders and higher proportions of psychotic disorders. In addition, Coleman and Baker (1994) found that 7 of 8 elderly veterans with affective disorder diagnoses had been misdiagnosed with schizophrenia. Echoing these findings is a recent empirical study by Schwartz and Feisthamel (in press) who investigated racial differences in the diagnosis of 486 clients who were diagnosed with a mood disorder (e.g., major depressive disorder). Chi square tests revealed that Euro-American clients were more often diagnosed with a mood disorder than African Americans clients. With reference to treatment decisions, Barlow (1993) explains that mood disorder usually requires less persistent interventions than psychotic disorders. Thus, a diagnosis of a mood disorder may represent a more “cautious” diagnosis on behalf of the diagnostician.

However, several studies found no racial difference in rates of affective disorder diagnoses among African Americans and Euro-Americans. Strakowski et al. (1996) noted that the rate of DSM-III-R depressive and manic syndromes was not different between racial groups, even though African Americans were much less likely to receive an affective disorder diagnosis. In addition, Vernon and Roberts (1982) found no difference between African American clients and Euro-American clients in rates of depression.

Few empirical studies have attempted to investigate whether non-psychotic-related or non-mood-related disorders may be diagnosed more frequently among persons of different races. Therefore, the phenomenon of differential diagnosis has been understudied with regard to the vast majority of DSM mental disorders. To date five empirical research studies have focused on whether or not substance-related disorders are diagnosed more often among persons of differing races. Flakerud and Hu (1992) report
that the frequency and percentage of substance abuse diagnoses was higher in African Americans than Euro-Americans. However, Snowden and Cheung (1990) reviewed the national data of 1980 admission rates per 100,000 civilian population including alcohol-related disorders and drug-related disorders. Results revealed no difference in race among alcohol-related disorders and drug-related disorders. Of significant importance is that specific DSM-related diagnoses of substance-related disorders were not specified in this study.

Moreover, Zhang and Snowden (1999) examined the ethnic ratios of 16 DSM-III mental disorders including drug or alcohol abuse and dependence among Euro-American, African American, Hispanic, and Asian Americans. Participants included 18,152 residents. Results of chi square tests of independence revealed that lifetime prevalence rates of drug abuse or dependence were significantly lower among Hispanics than among Euro-Americans. Lawson et al. (1994) compared clients who were admitted to a psychiatric inpatient unit using census data from the years 1984 and 1990 according to the State of Tennessee to examine racial difference in diagnostic categories such as alcohol and drug abuse disorders and affective disorders. The sample consisted of over 11,000 clients. Approximately 30% of participants were African Americans. Analyses showed no racial differences in alcohol and drug abuse disorders according to race. Kales et al. (2000) evaluated the impact of race on mental health in health care utilization among 23,718 older veterans in 1993 to 1994 of the Department of Veteran Affairs inpatient facilities using DSM-III-R criteria with diagnoses of substance abuse disorders. Results of chi square analyses showed that African American clients with substance abuse disorders had significantly more psychiatric visits than Euro-American clients.
Finally, only one study to date has empirically evaluated whether persons of color are diagnosed more often with childhood disorder than Euro-Americans. Schwartz and Feisthamel (in press) studied 182 clients with Oppositional Defiant Disorder, Conduct Disorder, or Attention Deficit-Hyperactivity Disorder. Participants included all clients over a continuous 10-month period with these three diagnoses presenting at a 10-county community mental health agency in a Southeastern state. Diagnosticians included licensed counselors trained in diagnostic assessment and evaluation. Results of chi square analyses revealed that African American clients were significantly more likely to be diagnosed with these childhood disorders than Euro-American clients. An extensive literature review has found no studies to date examining the differential diagnosis of other mental disorders (e.g., adjustment disorders) according to race.

Critique of Research Related to Differential Diagnoses

One weakness of prior research in this area was that the vast majority of studies employed psychiatrists, psychologists, social workers, or psychiatric nurses as the diagnosticians. According to Flaskerud and Hu (1992), 26% of the clinicians providing diagnoses in examining the relationship of ethnicity in psychiatric diagnoses were psychiatrists. Although psychiatrists receive advanced training in assessment and diagnosis of mental disorders, they may or may not receive adequate education on multicultural clinical techniques. Psychologists as diagnosticians accounted for 13% of the clinicians, psychiatric social workers 34%, and psychiatric nurses were 13% in a sample examining racial differences in diagnoses (Flaskerud & Hu, 1992). Moreover, level of education and clinical training for the social workers were not identified,
suggesting that these clinicians may have an education level of a bachelor’s degree (the minimum requirement for a social worker).

Most troublesome, however, was the fact that the majority of prior empirical studies investigating this phenomenon did not report diagnosticians’ professions or training (Harvey et al., 1990; Kales et al., 2000; Lawson et al., 1994; Sohler & Bromet, 2003; Takei et al., 1998; Thomas et al., 1993). For example, Blow et al. (2004) noted that their study could not fully address the role of identifying who the diagnostician was (e.g., psychiatrist, psychologist) and how provider training may differ within each profession with regards to cultural norms of practice, geographical location of the country, or higher populated ethnic areas (e.g., higher proportion of Hispanic in Los Angeles). Therefore, it is difficult to accurately generalize results of prior studies to professional counselors because of the counseling profession’s focus on multicultural training curriculum and professional identity (CACREP, 2001).

In fact, only one study to date has evaluated counselors’ diagnostic decision-making and how it is affected by client race (Schwartz & Feisthamel, in press). Schwartz and Feisthamel used as diagnosticians 10 licensed masters and doctoral level counselors who were trained in the assessment of mental disorders. Considering that only one empirical research study investigated the differential diagnosis of mental disorders according to race with professional counselors, additional research in this profession is clearly warranted. Because the American Counseling Association’s Code of Ethics (American Counseling Association [ACA], 2005) specifically stresses the importance of proper diagnosis (section E.5.a), cultural sensitivity in diagnosing mental disorders (section E.5.b.), and the historical and social roots of prejudice related to diagnosis
(section E.5.c), counseling-related research on differential diagnosis according to race should be expanded (Feisthamel & Schwartz, 2006). In order to advance counselor training and supervision, additional empirical research on counseling professionals’ diagnostic practices and potential biases is clearly needed (Feisthamel et al., 2005).

A second weakness found in the majority of previous empirical studies on race and diagnosis includes the fact that diagnosticians utilized older (i.e., pre-DSM-IV) diagnostic criteria when evaluating whether or not a particular client had a particular mental disorder (Adebimpe, 1994; Flakerud & Hu, 1992; Harvey et al., 1990; Richardson et al., 2003; Sohler & Bromet, 2003; Thomas et al., 1993; Zhang & Snowden, 1999). For example, Flarkerud and Hu (1992), Harvey et al. (1990), and Zhang and Snowden (1999) utilized DSM-III criteria in their respective studies. Several studies used DSM-III-R criteria, including Sohler and Bromet (2003), Kales et al. (2000), and Strakowski et al. (1996). Thus, as noted earlier the DSM-III and DSM-III-R have been criticized on several grounds including a general lack of overall reliability among diagnostic criteria (Malik & Beutler, 2002). The byproduct of this fact is that less empirically validated (and often less stringent) diagnostic criteria were utilized by clinicians in these research studies.

Thus, developers of the DSM-IV sought to improve upon flaws of earlier versions by using a three-stage process during the modification of diagnostic criteria. Malik and Beutler (2002) explained that each of the 13 work groups for the DSM-IV-TR conducted more extensive literature reviews to uncover gaps in research literature related to specific diagnoses or diagnostic questions. In cases where gaps existed, the work group considered the choice of obtaining existing data to resolve the difficulty. Finally, if
existing data were insufficient, the work group designed a field trial to help solve the issue. Schwartz and Feisthamel (in press) and Ries et al. (2000) both utilized DSM-IV criteria in their respective studies, overtly explaining the benefits of this more contemporary diagnostic system. Neighbors et al. (2003) reported several limitations in their own study examining racial differences in DSM diagnoses, especially the fact that they used DSM-III-R diagnostic criteria (even though DSM-IV criteria were available). These authors explain that “the instrument used in this study can be characterized as less structured than the more widely used Structured Clinical Interview for DSM-IV” (p. 252). Since the DSM and its diagnostic criteria have evolved after years of empirical research and professional consultation, and since it is important for educators and clinicians to speak a ‘common language’ with regard to what defines a particular mental disorder, additional studies using DSM-IV-TR (APA, 2000) diagnostic criteria are needed (Feisthamel & Schwartz, 2006).

A third drawback found in previous research on race and diagnoses involves the methodological weakness of using small sample sizes. Small sample size can reduce statistical power (Cohen, 1992) and limit the external validity of results (Thorndike, 2004). Although it may be difficult to obtain large and diverse sample populations of clients with specific DSM diagnoses, sample size is a highly important factor when designing research studies (Pedhazur & Schmelkin, 1991). Small sample sizes were noted only in a few studies, as the majority of previous research has shown appropriate statistical sample size. For example, Takei et al. (1998) reported a sample size of 88 and 40 participants respectively, making their results difficult to generalize. However, it
should be noted that small sample sizes in some studies related to race and diagnosis may have decreased the probability of extending findings to the general population.

A fourth weakness of previous research in this area was that the majority of studies used incomplete data analyses. Although, the majority of all research studies examined on this topic used chi square tests and/or logistical regression for their analyses, of significant importance is the lack of reporting effect sizes with these studies’ results. For example, Adebimpe (1981), Harvey et al. (1990), Kales et al. (2000), Lawson et al. (1994), Ries et al. (2000), Snowden and Cheung (1990), Sohler and Bromet (2003), Takei et al. (1998), Thomas et al. (1993), and Zhang and Snowden (1999) omitted this important statistic. Previous studies that did include effect sizes include Flaskerud and Hu (1992), Schwartz and Feisthamel (in press), and Strakowski et al. (1996). Effect sizes are important in understanding the clinical significance of reported results (Rosnow & Rosenthal, 1996; Thompson, 2002). Effect sizes are used in empirical research in referring to the magnitude of effects, their meaningfulness, and their importance (Pedhazur & Schmelkin, 1991). Effect sizes are particularly important because chi square tests are so heavily influenced by sample sizes (Thompson, 2002). That is, the use of “what if” analyses have been promoted as an addition to the use of conventional statistical tests (Snyder & Lawson, 1993).

Moreover, the fifth edition of the American Psychiatric Association’s Publication Manual (2000) reports that it is “almost necessary to include some index of effect size or strength of relationship in your Results section” (p 25). Thus, although some researchers have shown statistically significant results, indicating that clients of color are often
diagnosed more frequently with certain mental disorders, the strength of these findings cannot be fully interpreted.

Much less research has focused on the different frequencies of adjustment, substance-related, or childhood disorder diagnoses within the counseling profession. Moreover, dually diagnosed clients have been the focus related to substance abuse or dependence disorders (Ries et al., 2000). For example, the comorbidity of schizophrenia and an addiction disorder such as alcohol dependence has been associated with increased psychotic symptoms and higher psychiatric admission rates (Cuffel, Alford, Fischer, & Owen, 1996; Ries et al., 2000). On the other hand, Schwartz and Feisthamel (in press) have provided the most recent and only empirical study found to date focusing on the differential diagnosis of childhood disorders.

It is important for the counseling profession in general, counselor trainees, counselor educators, and clients to know additional information regarding differential diagnoses according to race. In order for clients to be effectively treated by counselors, objective diagnoses are essential. In order for clients to receive compassionate care that reflects their immediate needs, the identification of their distress must be accurate. Accurate diagnoses are also an important part of reducing stigma of and mistrust by clients, especially those from non-Euro-American decent. Most importantly, among the mental disorders that have been studied, there is no empirical evidence supporting a theory about the genesis of the phenomenon described above. That is, although differential diagnoses of some mental disorders are clearly documented, the reasons underpinning this pattern are speculative. It is hoped that additional research in this
important area may help illuminate a more tangible and empirically supported theory about the phenomenon of differential diagnoses and race.

Rationale for the Approach

Diagnosis has become a vital part of mental health professionals’ training and practice because it is integral to providing quality client care (Mead et al., 1997). However, in order for clinical diagnoses to be optimally effective, clinicians should follow specific diagnostic criteria outlined in the DSM (APA, 2000). The fact that a preponderance of research suggests differential diagnoses of certain mental disorders among specific racial groups highlights the need to further understand this phenomenon. Additional research in this area is clearly needed (Feisthamel & Schwartz, 2006). If future researchers investigate other diagnostic categories not studied previously, perhaps information about differential diagnoses of additional mental disorders will be illuminated. Therefore, recent authors have called for empirical research on proportions of anxiety, substance-related adjustment, and other diagnoses among persons of color versus Euro-Americans (Schwartz & Feisthamel, in press). If more information about this phenomenon is known, then theory can be further explored and ultimately mental health training and practice can be advanced (Feisthamel et al., 2005).

This study heeded the advice of recent authors in this area in order to further investigate the phenomenon of differential diagnosis and race. This study employed a descriptive approach to studying this phenomenon. That is, the researcher collected data from a sample population at one point in time, rather than using an experimental approach. A descriptive research design was appropriate in order to answer the research
questions posed because the goal of this study was to simply identify the occurrence of the phenomenon rather than to manipulate the environment in a controlled way.

DSM diagnoses not studied previously or those that have not been adequately studied by recent researchers were investigated. Assignments of specific diagnoses are based on strict criteria included in the most recent version of the DSM (APA, 2000). All diagnoses were identified only after structured clinical interviews were completed by trained mental health professionals. Diagnosticians included only licensed professional counselors in order to help advance counselor education and training regarding this phenomenon. Data analyses were improved by including effect sizes and confidence intervals in addition to inferential statistics. A large sample was used, and participants were drawn from a multi-county area in order to help increase the generalizability of results. Finally, frequencies of diagnoses were investigated among two primary ethnic groups (i.e., African American and Euro-American).
CHAPTER III
METHODOLOGY

The purpose of this study was to examine whether different rates of DSM-IV-TR (APA, 2000) mental disorder diagnoses occur in an inpatient sample according to race. This study investigated specifically whether professional counselors assign certain types of mental disorders proportionately more often to African Americans compared with Euro-American clients. This study analyzed archival data from a large community mental health agency in a Southeastern state utilizing an ex post facto research design. This chapter provides an overview of the research questions, a description of the variables, and an overview of the research design for the study.

General Research Questions

1. Do professional counselors diagnose adjustment disorders more often in African Americans versus Euro-American clients?

2. Do professional counselors diagnose substance-related disorders more often in African Americans versus Euro-American clients?

3. Do professional counselors diagnose childhood disorders more often in African Americans versus Euro-American clients?
Null and Directional Hypotheses

Null hypothesis 1: There is no statistically significant difference in proportionate rates of adjustment disorder diagnoses assigned to African American and Euro-Americans clients.

Directional hypothesis 1: Adjustment disorder diagnoses are assigned to Euro-American clients at a higher frequency compared with African American clients.

Null hypothesis 2: There is no statistically significant difference in proportionate rates of substance-related disorder diagnoses assigned to African American and Euro-Americans clients.

Directional hypothesis 2: Substance-related disorder diagnoses are assigned to African Americans at a higher frequency compared with Euro-American clients.

Null hypothesis 3: There is no statistically significant difference in proportionate rates of childhood disorder diagnoses assigned to African Americans and Euro-Americans clients.

Directional hypothesis 3: Childhood disorder diagnoses are assigned to African Americans at a higher frequency compared with Euro-American clients.

Description of Independent and Dependent Variables

The independent variable was self-reported race. The independent variable is based on a nominal scale and comprises of two distinct categories, consistent with the two ethnic groupings included in this study (Euro-American clients and African American clients).

The dependent variable was based on a nominal scale and includes three separate diagnostic categories, congruent with the three mental disorder groupings investigated in this study (adjustment disorders, substance-related disorders, and childhood disorders).
Research Design

In this study, archival data were collected and analyzed in order to test the null and directional hypotheses stated above. That is, the data used in this study were fixed. “Fixed data . . . is data that is not, under normal circumstances, subject to change. Examples of fixed data include results from concluded research, medical records, and historical data” (Fixed data, 2005). Relative to the collection of data for purposes of this research study, archival or fixed data is information collected and stored on a periodic basis by the participating mental health agency. Archival data included previously documented factual information about clients’ clinical diagnosis, race, sex, and age.

The research design used in this study was ex post facto with tests of alternative hypotheses. Ex post facto research is generally a term used to describe research that is initiated after the independent variable has already occurred (Newman, Newman, Brown, & McNeely, 2006). Thus, the ex post facto design with tests of alternative hypotheses was chosen because the investigator cannot manipulate the variables in this study. According to Kerlinger (1973), “ex post facto research is a systematic inquiry in which the scientist does not have direct control of the independent variables because their manifestations have already occurred or because they are inherently not manipulable” (p. 379).

Ex post facto research with tests of alternative hypotheses suggests that hypotheses other than the ones proposed may explain the effects that the independent variable(s) has on the dependent variable(s) (Newman et al., 2006). These explanations are competing hypotheses to the original hypotheses that were first proposed. Thus, the more alternative hypotheses that can be eliminated, the greater the internal validity of the
research design (Newman et al., 2006). Most importantly, ex post facto research tests
variables in such a way that statistical relationships can be ascertained but causation
cannot be inferred (Newman & Newman, 1994). However, even though ex post facto
research findings cannot be used to attribute causation, this research design can be
extremely useful to researchers. For example, Newman and Newman (1994) explains that
“One of the most effective ways of using ex post facto research is to help identify a small
set of variables from a large set of variables related to the dependent variable for future
experimental manipulation” (p. 124). This essentially means that when dealing with
relationships of two or more variables, ex post facto research is appropriate. If the
research questions will be dealing with causation (e.g., true experimental design), ex post
facto research would be inappropriate. Since the statistical hypotheses in this study
involve proportions (i.e., how often one group is diagnosed versus other groups), ex post
facto research is ideal.

Delimitations

The sample population was delimited to participants assigned a mental disorder
diagnosis in one of three categories: adjustment disorder, substance-related disorder, or
childhood disorder. These three mental disorder categories were specifically chosen for
this study because, although clinical and theoretical evidence exists regarding differences
in rates of diagnoses according to client race, the phenomenon has not been adequately
empirically investigated. Due to the nature of the archival data available, participants
were delimited to a geographic region in the Southeastern United States. In order to help
ensure generalizability of results to other client populations, delimitations were not
placed on participants’ age, race, income, educational background, vocational history, severity of symptoms, prior treatment history, or living status.

Participants

Participants included 899 clients selected from a community mental health agency in a Southeastern state. Data included archival diagnostic and demographic information about all newly admitted clients over a continuous 10-month period. Archival data were collected from the year 2000. Participants investigated in this study were assigned the following DSM-IV-TR (APA, 2000) diagnoses by a licensed professional counselor:

- Adjustment disorders, including the following specific sub-types: With Depressed Mood (309.0), With Anxiety (309.24), With Mixed Anxiety and Depressed Mood With Disturbance of Conduct (309.3), With Mixed Disturbance of Emotions and Conduct (309.4), Unspecified (309.9).

- Childhood disorders, including the following specific types: Oppositional Defiant Disorder (313.81), Disruptive Behavior Disorder Not Otherwise Specified (312.9), Attention Deficit-Hyperactivity Disorder, Combined Type (314.01), Attention Deficit-Hyperactivity Disorder, Predominantly Inattentive Type (314.00), Attention Deficit-Hyperactivity Disorder, Predominantly Hyperactive-Impulsive Type (314.01), Conduct Disorder, Childhood-Onset Type (312.81), Conduct Disorder, Adolescent Onset-Type (312.82), Conduct Disorder, Unspecified Onset (312.89).

- Substance-related disorders, including the following specific types: Substance Abuse (e.g. Alcohol Abuse 305.0 and other subtypes), Substance Dependence (e.g. Cocaine Dependence 304.2 and other specific subtypes)
Overview of Disorders

Adjustment disorders involve distress or impairment in functioning that is frequently manifested as decreased performance at work or school and temporary changes in social relationships (APA, 2000). The onset of an Adjustment Disorder begins within 3 months of a particular stressor (e.g., losing one’s job) and lasts no longer than 6 months after that particular stressor has dispersed (APA, 2000). Thus, Adjustment Disorders are quite common. That is, the prevalence rate of an Adjustment Disorder has been reported to be between 2% and 8% in community samples and diagnosed up to 12% of hospital inpatients (APA, 2000).

Attention-Deficit/Hyperactivity Disorder (ADHD) is a persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequently displayed and more severe than is usually observed in individuals at comparable developmental levels (APA, 2000). Two primary features of ADHD include some symptoms were present before the age of 7 and some impairment from the symptoms is present in two or more settings (e.g., at school and at home) (APA, 2000). The prevalence rate of ADHD has been estimated at 3% to 7% in school-age children (APA, 2000).

Oppositional Defiant Disorder (ODD) is a recurrent pattern of negativistic, defiant, and hostile behavior toward authority figures that continues for at least 6 months (APA, 2000). Some behaviors include losing one’s temper and arguing with adults, actively defying to follow rules of adults, being touchy or easily annoyed by others, or being spiteful and vindictive (APA, 2000). Prevalence rates of ODD range from 2% to 16% of the population (APA, 2000).
Conduct Disorder (CD) is repetitive and persistent pattern of behaviors in which the basic rights of others are violated that may include behaviors of aggressive conduct that causes physical harm to other people or animals, non-aggressive conduct that causes property loss or damage, or theft (APA, 2000). The behavior must be present during the last 12 months with at least one behavior present in the past 6 months (APA, 2000). The prevalence rate of Conduct Disorder has been reported as less than 1% to more than 10% depending on the sample, and higher among males than females (APA, 2000).

Substance Abuse is a maladaptive pattern of substance use manifested by recurrent and significant adverse consequences related to the constant use of substances (APA, 2000). In order to meet Abuse criterion, the substance-related problem must have occurred consistently during the same 12-month period (APA, 2000).

Substance Dependence is described as a cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues the use of the substance despite significant substance-related issues (APA, 2000). There is a constant pattern of self-administration that can result in tolerance, withdrawal, and compulsive drug-taking behavior (APA, 2000).

The Substance Abuse and Mental Health Services Administration (SAMHSA) reported that in 2002, about 22 million people or 9% of the total population aged 12 or older were classified with substance abuse or substance dependence (SAMHSA, 2000). Of the 22 million people classified as having a substance-related disorder, 3.2 million were dependent on or abused drugs, and 14.9 million people were dependent on or abused alcohol (SAMHSA, 2000).
Setting

The specific setting was the main inpatient treatment center for a 10-county comprehensive state-supported community mental health agency. All clients from the agency’s 10-county catchment area needing assessment for possible inpatient admission presented to the center for evaluation. Clients with the diagnoses listed above who were consequently admitted for short-term inpatient stabilization treatment were included as participants. Demographic variables (e.g., age, race, sex) were reported for all participants once the data were analyzed. Geographically, participants lived in rural to semi-urban areas. For purposes of generalizability, the total population of the 10 counties in the community mental health agency’s catchment area was approximately 425,000 people (U.S. Census Bureau, 2000).

Procedures

Clients presented at the inpatient treatment center of a community mental health agency either voluntarily or involuntarily due to extreme distress or significant social or occupational impairments. In all cases, clients were evaluated regarding the need for inpatient stabilization treatment (versus other forms of treatment, such as outpatient treatment, case management services, partial hospitalization services, etc.). Upon presentation at the treatment center, all clients participated in a comprehensive psychosocial evaluation, including the collection of demographic information (e.g., age, race, sex), a medical history, a treatment history, and a social/family history. At the end of the evaluation, all clients were diagnosed using DSM-IV-TR (APA, 2000) (including V71.09- No Diagnosis, if applicable). The Structured Clinical Interview for DSM-IV (SCID; First, Spitzer, Gibbon, & Williams, 1995) was used to help standardized clinical
interviews. The SCID is a semi-structured interview process specifically designed to guide counselors in assessing and diagnosing Axis I DSM mental disorders. The reliability of the SCID-I is reported in terms of kappa, a statistic that corrects for chance agreement (First & Gibbon, 2004). In terms of interpreting this statistic, Kappa values above .70 are considered good, .50 to .70 fair agreement, and below .50 as poor agreement (First & Gibbon, 2004). Reliability estimates regarding substance-related disorders ranged from .76 to 1.00 (Zanarini et al., 2000). Thus, the average SCID-I reliability for substance-related disorders is approximately .85 (Skyre, Onstad, Torgersen, & Kringlen, 1991). Although reliability statistics are not available for childhood and adjustment disorders specifically, several studies assessing this interview approach for mood disorders, psychotic disorders, anxiety disorders, eating disorders, and somatoform disorders all show good inter-rater reliabilities (First & Gibbon, 2004). In terms of validity, the SCID-I primarily relies on face validity. However, the most accepted standard used in psychiatric diagnostic studies in terms of validity for the SCID-I is known as a “best estimate diagnosis” (First & Gibbon, 2004). That is, Spitzer purposed the “LEAD” standard (Spitzer, 1983). The LEAD involves conducting a longitudinal assessment (L) done by expert diagnosticians (E), using all the data (AD) that are available about the subjects (First & Gibbon, 2004). Although the LEAD is appealing, it has been limited in its use. See Appendix A for a complete summary of the SCID questions related to the diagnoses in this study. Total duration of the interview process was approximately 60 to 90 minutes.

Interviews were performed and diagnoses were determined by 10 licensed master’s and doctoral-level professional counselors. All clinicians were trained through
the treatment setting in the assessment of mental disorders. Of the 10 counselors, 7 were female and 3 were male. Nine counselors were Euro-American and one was self-identified as being of mixed race. All diagnosticians graduated from CACREP-accredited institutions (CACREP, 2001) with graduate degrees in counseling. At the time clinical interviews were conducted and diagnoses were assigned, all clinicians were blind to the purpose and procedures of this study.

After clinical interviews were completed, clients were then triaged to the most appropriate treatment setting. Diagnosis, demographic, and treatment-related (e.g., length of stay) information for all clients subsequently admitted as inpatient clients was entered in the treatment setting’s electronic medical records by office staff. De-identified inpatient client information was used for this study.

Data Analyses

Descriptive statistics were obtained for all variables. Descriptive statistics included the means, standard deviations, and ranges of the independent and dependent variables. Frequency distributions were also provided. Because it is important to test whether there is a relationship between clients’ race and how frequently clients were diagnosed with certain mental disorders, inferential statistics was used. To test the statistical hypotheses for this study, a series of three 2 X 2 (Euro-American, or African American X Specific Diagnosis Present, Specific Diagnosis Not Present) chi square tests for independent samples was used, one for each diagnostic category investigated (i.e., adjustment disorders, substance-related disorders, childhood disorders). Because all data are nominal, there are two mutually exclusive groups of participants in the independent variable (i.e., two racial categories), and there are two distinct groups in the dependent
variable (i.e., those who were diagnosed with a particular mental disorder and those who were not), chi square tests for independent groups is the appropriate type of chi square analysis for this study (Siegel & Castellan, 1988).

First, a 2 X 2 chi square analysis for independent samples tested whether race (Euro-American or African American) predicted differential assignment of adjustment disorder diagnoses (adjustment disorder diagnosis versus no adjustment disorder diagnosis). Second, a 2 X 2 chi square analysis for independent samples tested whether race (Euro-American or African American) predicted differential assignment of substance-related disorder diagnoses (substance-related disorder diagnosis versus no substance-related disorder diagnosis). Third, a 2 X 2 chi square analysis for independent samples tested whether race (Euro-American or African American) predicted differential assignment of childhood disorder diagnoses (childhood disorder diagnosis versus no childhood disorder diagnosis). A chi square analysis was deemed to be the appropriate and most useful statistical procedure because this type of analysis is used to determine whether or not the dependent and independent variables are independent of one another. Chi square analyses determine this by statistically analyzing the actual proportion of cases linking the dependent and independent variables in the research sample and comparing these proportions with the predicted proportions estimated in the larger population if both variables were unrelated. Specifically, this test determines whether statistically significant differences in proportions or frequencies are observed in the dependent variable (i.e., diagnosis) as a consequence of the independent variable (i.e., race) (Siegel & Castellan, 1988). If statistically significant results are found, rates of the dependent variable are linked to or dependent on aspects of the independent variable.
Similar to results of Pearson correlation analyses used with interval data, results of chi square analyses can determine statistically significant relationships among variables but cannot be used to imply direct causation.

An initial alpha level of $p < .05$ was used to address statistical significance. However, because three separate series of chi square analyses were performed, a Bonferroni correction was used to correct for Type I error. Results of the Bonferroni correction (.05/3) yielded a final alpha level of $p < .017$, which was used to interpret statistical results. Lower and upper confidence interval limits (95%) were also calculated around the population parameters (Smithson, 2003). Confidence intervals are important for reporting results such as these because they indicate how certain a researcher is that the sample parameter falls within the estimated population interval. That is, the width of this interval is based on the degree of confidence a researcher wishes to have in the result, as well as the sampling error (Pedhazur & Schmelkin, 1991).

Finally, the Binomial Effect Size Display (BESD) (Rosenthal & Rubin, 1982) was used to underscore the applicability and practical importance of the effect size for each chi square analysis performed. Essentially, the BESD shows the change in outcomes attributable to the independent variable (Rosenthal & Rubin, 1982). Thus, the BESD is used to transform the raw outcome values into uniform percentages by setting each of the marginal values in a 2 X 2 table at 100%, comparing the independent variable (rows) with the dependent variable (columns) (Rosenthal & Rubin, 1982). Therefore, the BESD is used to exemplify the magnitude of differences between two groups so the effect size of reported results can be accurately interpreted.
Summary of Methodology

This chapter described how participant data were obtained archivally. Participant characteristics were delimited only by their specific DSM-IV-TR (APA, 2000) diagnosis and their geographic locale. The null hypotheses stated that there is no statistically significant difference between clients’ race and how frequently clients were diagnosed with a particular mental disorder. It was predicted, via directional hypotheses, that certain mental disorders (i.e., adjustment disorders) would be assigned more often to Euro-American clients and certain mental disorders (i.e., substance-related disorders and childhood disorders) would be assigned more often to clients of color. Data analyses were summarized, that is, a series of three 2 X 2 chi square tests of independent samples was performed to test the statistical hypotheses posed. A Bonferroni-corrected alpha level of $p < .017$ was used to interpret results of chi square analyses, and 95% confidence intervals and effect sizes were reported for each statistical test.
CHAPTER IV
RESULTS

The purpose of this study was to examine whether different rates of DSM-IV-TR (APA, 2000) mental disorder diagnoses occur in an inpatient sample based on clients’ race. That is, this study specifically examined whether different rates of childhood adjustment, and substance-related diagnoses were more prevalent in Euro-American versus African American inpatient clients. Chapter IV presented complete statistical results found in this study. First, descriptive statistics were provided for the entire sample. Next, in order to test the three null hypotheses, results of chi square analyses for independent samples were discussed.

Descriptive Statistics for Sample Demographic Characteristics

For the entire sample (N = 899) the average age was 29.5 years (SD = 15.2 years). Participants ranged in age from 4 to 85 years. In terms of sex, 458 (51%) participants were male and 441 (49%) were female. In terms of race, 671 (75%) participants self-identified their race as Euro-American and 228 (25%) participants self-identified as African American. In terms of DSM diagnoses, 111 were assigned an adjustment disorder, 104 were assigned a substance-related disorder, and 129 were assigned with a childhood disorder. For complete descriptive statistics for each DSM category discussed in this study, see Table 1.
Table 1
Descriptive Statistics According to Diagnostic Category

<table>
<thead>
<tr>
<th>Variable</th>
<th>Adjustment disorders</th>
<th>Substance-related disorders</th>
<th>Childhood disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (Mean/SD)</td>
<td>23.9/13.2</td>
<td>35.4/10.4</td>
<td>13.3/4.6</td>
</tr>
<tr>
<td>% Male/Female</td>
<td>48/52</td>
<td>58/42</td>
<td>68/32</td>
</tr>
<tr>
<td>% African American/Euro-American</td>
<td>15/85</td>
<td>27/73</td>
<td>36/64</td>
</tr>
</tbody>
</table>

Table 1 shows that of the 111 individuals diagnosed with an adjustment disorder, 85% were Euro-American, while only 15% were African American. In terms of adjustment disorder diagnoses, 68% of the participants ranged between the ages 10.7 and 37.1 years. The complete age range for all adjustment disordered participants was 6 to 78 years. More males (58%) were assigned a substance-related disorder and 73% of the 104 diagnosed were of Euro-American descent. In terms of substance-related disorder diagnoses, 68% of the participants ranged between the ages of 25.0 and 45.4 years. The complete age range for all adjustment disordered participants was 15 to 60 years. In terms of childhood disorder diagnoses, 68% of the participants ranged between the ages of 8.7 and 17.9 years. The complete age range for all adjustment disordered participants was 4 to 42 years. Moreover, 68% of the 129 diagnosed with a childhood disorder were male and 64% of that sample was Euro-American (36% were African American).
Results for Research Hypothesis One

Statistical Hypothesis 1 states that there is no statistically significant difference in proportionate rates of adjustment disorder diagnoses assigned to clients of color and Euro-Americans clients. In order to test this hypothesis a 2 X 2 Chi Square test of independent samples was conducted. Results showed that Euro-American clients were significantly more likely than African Americans to receive an adjustment disorder diagnosis ($\chi^2 (1, N = 111) = 6.8, p = .005; 95\% CI = .41 – 20.86$). Thus, counselors assigned a differentially greater amount of adjustment disorder diagnoses to Euro-Americans than African Americans. According to statistical results reported above, the proportion of these diagnoses was to a greater degree than what would be expected by chance if race did not impact diagnostic decisions. The effect size for this model (nominal by nominal scales) was $\Phi = .087$ (Trusty, Thompson, & Petrocelli, 2004). According to Cohen (1992), this is considered a small effect size. Of the entire sample ($N = 899$), 15% of all Euro-American clients were diagnosed with an adjustment disorder compared to only 7% of all African American clients.

Results for Research Hypothesis Two

Statistical Hypothesis 2 states that there is no statistically significant difference in proportionate rates of substance-related disorder diagnoses assigned to African American and Euro-Americans clients. In order to test this hypothesis a 2 X 2 Chi Square test of independent samples was conducted. Results showed that there was no statistically significant relationship between race (Euro-American versus African American) and being assigned a diagnosis of a substance-related disorder ($\chi^2 (1, N = 104) = .15, p = .39$). Thus, statistical results supported this null hypothesis.
Results for Research Hypothesis Three

Statistical Hypothesis 3 states that there is no statistically significant difference in proportionate rates of childhood disorder diagnoses assigned to African Americans and Euro-Americans clients. In order to test this hypothesis, a 2 X 2 Chi Square test of independent samples was conducted. Results showed that African Americans were significantly more likely than Euro-Americans to receive a childhood disorder diagnosis ($X^2 (1, N=129) = 9.8, p = .002; 95\% CI = 1.37 – 25.91$). Compared to what would be expected by chance if race were not statistically factored into frequencies of diagnoses, counselors diagnosed African Americans more often than Euro-Americans with a childhood disorder. The symmetric measures effect size for this analysis (nominal by nominal scales) was Phi ($\Phi$) = .104. A Phi ($\Phi$) = .104 is considered a small effect size (Cohen, 1992). Of the entire sample ($N = 899$), 20% of all African American clients were diagnosed with a childhood disorder compared with only 12% of all Euro-American clients.

Summary of Results

Results of Hypothesis 1 showed that a 2 X 2 Chi Square test of independent samples of adjustment disorders between African American and Euro-American clients was statistically significant. That is, Euro-Americans were assigned with an adjustment disorder diagnosis statistically significantly more often than African Americans. Results of Hypothesis 2 revealed that a 2 X 2 Chi Square test of independent samples showed no statistically significant differences in substance-related disorder diagnoses among African Americans and Euro-Americans. Results of Hypothesis 3 showed that a 2 X 2 Chi Square test of independent samples of childhood disorders between African American and Euro-
American clients was statistically significant. That is, African Americans were diagnosed statistically significantly more often with a childhood disorder diagnosis than Euro-American clients.
Summary of Research Findings and Implications for Theory

Results of Hypothesis 1 showed that a 2 X 2 Chi Square test of independent samples of adjustment disorders between African American and Euro-American clients was statistically significant. That is, Euro-Americans were assigned with an adjustment disorder diagnosis statistically significantly more often than African Americans. Results of Hypothesis 2 revealed no statistically significant differences in substance-related disorder diagnoses among African Americans and Euro-Americans. Results of Hypothesis 3 showed statistical significance between African Americans and Euro-American clients with a childhood disorder diagnosis. That is, African Americans were diagnosed statistically significantly more often with a childhood disorder diagnosis than Euro-American clients.

There are many possibilities why persons of color may be diagnosed with certain mental disorders, while Euro-Americans are diagnosed with other (often less severe) illnesses. Although the vast preponderance of prior research has shown that this phenomenon exists across treatment settings and professional affiliations, most authors in this area assert that the cause is likely due to racial diagnostic bias. This theory, and an alternative hypothesis for the phenomenon described above, is presented here.
Racial Bias as a Cause of Differential Mental Disorder Diagnoses

A review of the literature found that the primary theory guiding research on the differential diagnosis of mental disorders among certain racial groups was racial diagnostic bias. One definition of racial bias is making unwarranted judgments about clients on the basis of their race (Kales et al., 2005). Sinecore-Guinn (1995) provided a more complete definition of racial bias. That is, as an error in judgment that mental health professionals make when they collect and interpret information (p.18). Thus, the assumption of racial bias in the clinical decision-making process has been made repeatedly, largely based upon the differential classification of psychotic and mood disorders according to race (Neighbors et al., 2003). As the DSM (APA, 2000) states, “there is some evidence that clinicians may have a tendency to overdiagnose schizophrenia in some ethnic groups” (p. 307). Racial bias may involve making unwarranted judgments about people on the basis of their race (Snowden, 2003). Racial bias during the clinical treatment process may lead to errors in decisions about treatment and the management of psychiatric symptoms (Sohler & Bromet, 2003). Perhaps mental health professionals unconsciously do not offer the same services for African Americans compared to Euro-Americans (Ashton et al., 2003). For example, sociological research suggests that bias may occur without intention or recognition, and that certain situational factors, such as working under time pressures, may enhance racial stereotypes (Pratto & Bargh, 1991; Stangor & Duan, 1991).

As defined in the DSM-IV-TR (APA, 2000), a mental disorder is a current psychological or behavioral syndrome that occurs in an individual and that is associated with present distress or disability, or with a significantly increased risk or suffering death,
pain, disability, or important loss of freedom. In addition, this syndrome must not merely be an expectable and culturally sanctioned response to a particular event (p. xxxi). In this regard, the DSM (APA, 2000) states “The context of the individual’s cultural setting should be taken into account in making the clinical judgment of whether the individual’s response to the stressor is maladaptive or whether the associated distress is in excess of what would be expected” (p. 681).

Therefore, the DSM (APA, 2000) suggests how vital it is for mental health professionals to be aware of cultural differences when attending to client symptomatology. Moreover, the DSM-IV-TR’s (APA, 2000) section Ethnic and Cultural Considerations states that

Special efforts have been made in the preparation of DSM-IV to incorporate an awareness that the manual is used in culturally diverse populations in the United States and internationally. Clinicians are called on to evaluate individuals from numerous different ethnic groups and cultural backgrounds (including many who are recent immigrants). Diagnostic assessment can be especially challenging when a clinician from one ethnic or cultural group uses the DSM-IV Classification to evaluate an individual from a different ethnic or cultural group. A clinician who is unfamiliar with the nuances of an individual’s cultural frame of reference may incorrectly judge as psychopathology those normal variations in behavior, belief, or experience that are particular to the individual’s culture. (pp. xxxiii-xxxiv)

This quote means that clinicians need to be aware of various ethnic group differences during the diagnostic assessment process. Clinicians should adhere to the cultural considerations set forth in the DSM-IV when working with clients from cultures different from the clinician’s. Eriksen and Kress (2005) suggested that experiencing other cultures often assists people in viewing their own culture more objectively. Multicultural research can be very helpful to those attempting to assign DSM diagnoses to individuals from differing cultures. Furthermore, when making diagnoses clinicians must balance
clients’ symptoms with culture-related problems such as poverty, oppression of women
and children, illiteracy, low socioeconomic status, and other social ills (Eriksen & Kress,
2005). Thus, if mental health professionals or users of the DSM do not understand
culture, it could result in the potential of racial bias.

Dana (2002) asserted that bias is apparent in the attitudes and behaviors of service
providers, the service delivery process, psychiatric diagnoses, and interventions. Geller
(1988) reported that psychiatrists who used identical client data excluding race found that
African Americans were less able to benefit from psychotherapy. These individuals were
classified as being less articulate, competent, and sophisticated about mental health
settings. Furthermore, bias has been evident in hospital admissions, and distortions in
information retrieval during diagnostic decision making (Lawson et al., 1994).

As described above, social psychological researchers report that bias can occur
without attention or recognition (Ashton et al., 2003). Moreover, other concepts linked to
skin color, such as clinicians’ perceptions about the client’s social class and education,
may lead to bias on the part of the clinician. The phenomenon of misdiagnosis of
individuals from ethnic minority groups may occur because diagnostic decisions rely on
mental health professionals’ own judgments of excessiveness, thereby inherently
including clinician subjectivity (Cook, Warnke, & Dupuy, 1993). That is, mental health
professionals may be vulnerable to mistakes in judgment when they collect and interpret
client information, and perhaps these errors could result from the clinician’s own
stereotypes, prejudices, and personal histories (Morrow & Deidan, 1992). Regarding the
possibility of racial diagnostic bias, Adebimpe (1994) explained that “it is therefore
remarkable that these allegations (of misdiagnosis) have not been extensively and
rigorously examined. Almost a decade after they were first made, there exists only a modicum of data by which they can be evaluated” (p. 279).

Research related to racial bias and DSM diagnoses with childhood disorders has not been adequately studied within the counseling field. However, there has been some research within the discipline of school psychology that mentions differences in mental disorder diagnoses among children (Seahill et al., 1999). It should be noted that common among most research related to school-aged children in this area are the uses of other psychological measurements, and/or behavioral rating scales regarding the assessment of children (Reid, 1995). That is, Samuel et al. (1998) examined ADHD among African American children versus Euro-American children who were assessed using the Schedule for Affective Disorders and Schizophrenia for School-Age Children - Epidemiologic Version 5 using DSM-III-R criteria. Results suggested that African American children who were assigned a diagnosis of ADHD had higher levels of psychiatric disorders other than ADHD (e.g., anxiety disorders). These results may suggest a poorer prognosis for African American children than Euro-American children. In a related study, Reid, Casat, Norton, Anastopoulos, & Temple (2001) examined 3,998 elementary school children between the ages of 5 and 11 on the IOWA Conners Rating Scale (IOWA) (2,124 of participants were African American). IO referred to Inattention/Overactivity and WA referred to Aggression (Reid et al., 2001). Results showed that African American children had higher rates of obtaining a positive IO and WA scores compared to Euro-American children. Furthermore, teachers rated the African American children higher on the subscales of IO and WA. These results may suggest racial disparities when assessing children with the possibility of culturally biased testing instruments. In addition, Nolan,
Gadow, and Sprafkin (2001) examined the prevalence of DSM-IV symptoms of ADHD, ODD, and Conduct Disorder among children between the ages of 3 and 18 years. Teachers completed a DSM-IV referenced symptom inventory related to the 3,006 children involved in the study. Results revealed that the screening rates were higher for African American children compared to Euro-American children. Moreover, Scahill et al. (1999) examined childhood disorders among a sample of 449 children. Results suggested that children in the ADHD group were from a low-income family; mothers had a history of psychiatric treatment; these participants were from an under-represented cultural group (e.g., African Americans); and the majority were male. On the other hand, Stevens, Harman, and Kelleher (2005), who investigated race and ethnicity regarding ADHD, found that African American and Hispanic American children were less likely to have a diagnose of ADHD by parent report than Euro-American children. Therefore, in most prior studies professionals diagnosed children of color with childhood disorders more often than Euro-American children, even if parents did not. One can infer that these findings may have related implications for the counseling profession as well. For example, it may be beneficial for counselors to know that the potential for diagnostic bias within children may be generalized to other disciplines besides the counseling field such as school psychology.

Theoretically, cultural bias and clinician bias may both overlap regarding this phenomenon. For instance, Whaley (2004a) reported that cultural bias represents factual racial differences in symptoms that may be overlooked or misconstrued by clinicians. That is, the concept of cultural bias proposes that cultural norms for paranoia in African Americans are different than Euro-Americans because of historical and contemporary
experiences with racism and oppression (Whaley, 2004a). During a clinical interview with a Euro-American clinician, African Americans may express distrust or suspiciousness that may not reflect psychopathology. Paranoia may serve as a self-protective function against racially-based threats to self-esteem for African Americans, yet it may be misinterpreted as pathology by clinicians leading to the misdiagnosis of a certain mental disorder (e.g., schizophrenia) (Ridley, 1984). Clinician bias, on the other hand, refers to the lack of discretion with diagnostic criteria during the clinical decision-making process. For example, previous studies have found racial differences in diagnostic outcomes remain even after controlling for clinician’s lack of acknowledgment to DSM criteria with certain mental disorder diagnoses (Neighbors et al., 1999; Pavkov, Lewis, & Lyons, 1989; Whaley, 1997). Moreover, the DSM (APA, 2000) makes a special point about adhering to cultural variations when diagnosing individuals from different ethnic backgrounds. For example, clinicians assessing the symptoms of schizophrenia must take cultural differences into account. “In some cultures, visual or auditory hallucinations with a religious content may be a normal part of religious experience (e.g., seeing the Virgin Mary)” (p. 306). Cultural differences can also influence the expression of depression in clients from different racial groups. As the DSM (APA, 2000) notes, “in some cultures, depression may be experienced largely in somatic terms, rather than with sadness or guilt” (p. 353). This makes it important for clinicians to understand if the symptoms represented do indeed contribute to psychopathology. Thus, these racial differences may be due to underlying clinical bias or cultural variations in the appearance of psychiatric disorders.
Based on the literature about potential racial bias in the clinical decision-making process, one possible conceptual pathway has been developed. Figure 1 shows this pathway as a graphic means of describing what may ultimately lead to differential diagnoses among persons of certain racial groups. The theoretical pathway involves a five-step process.

1: Clinician and Client engage in the assessment process

2: Clinician holds Stereotypical beliefs

3: Clinician selectively attends to client information

4: Clinician’s judgment is influenced by bias

5: Clinician misdiagnoses the client

Figure 1. Conceptual pathway for potential racial bias in the clinical decision-making process.
First, the clinician and client engage in the assessment process. That is, both clinician and client meet for the diagnostic interview to discuss the client’s primary concerns. Next, as information is gathered, the clinician’s subjective stereotypical beliefs about ethnic characteristics develop unconsciously. Third, the clinician selectively attends to certain verbal and nonverbal client information. Fourth, clinician’s judgment is influenced by personal biases unconsciously accumulated during the diagnostic assessment. Then, the clinician misdiagnoses the client. Certain DSM diagnoses are thereby assigned more frequently to clients of certain races (i.e., African Americans will more likely receive psychotic and childhood disorder diagnoses and Euro-Americans will more likely receive mood disorder diagnoses). In this hypothesized conceptual pathway clinician bias culminates in misdiagnosis, which ultimately affects both epidemiological studies (i.e., prevalence rates of certain disorders among certain racial groups) and treatment decisions. As Figure 1 shows, this pathway may ultimately continue to reinforce clinicians’ unconscious stereotypical beliefs about certain ethnic groups.

The Surgeon General’s recent report on mental health treatment disparities among different racial groups suggests that the potential of clinician diagnostic bias remains a very complex issue (U.S. Department of Health and Human Services [DHHS], 2001). The Surgeon General (DHHS, 2001) states

To infer a role for bias and stereotyping by clinicians does not prove that it is actually occurring, nor does it indicate the extent to which it explains disparities in mental health services. Some of the racial and ethnic disparities described in this supplement are likely the result of racism and discrimination by Euro American clinicians; however, the limited research on this topic suggests that the issue is more complex. (p. 32)
However, it should be noted that an alternative conceptual pathway for the phenomenon of differential diagnoses among certain ethnic groups, one that addresses the complexities alluded to above, may include sociocultural phenomena rather than clinician bias per se.

Symptomatology as a Cause of Differential Mental Disorder Diagnoses

Although racial diagnostic bias may account for the higher rates of certain mental disorder diagnoses among particular racial groups, as asserted by the vast majority of authors in this area, another conceptual pathway can also be asserted regarding this phenomenon. A pathway that seems to be far less commonly cited among clinical practitioners and researchers involves *actual* cultural differences in symptomatology among persons of differing races. That is, severity of symptomatology – and therefore proportions of mental disorders – may differ on average among Euro-Americans and African Americans or other persons of color. These differences may therefore be correctly identified by clinicians when clients actually present for assessment and treatment. If this theory (i.e., that clinicians’ diagnoses are in fact objective and accurate) is correct, then the differential diagnosis of mental disorders among certain racial groups may be more of a socio-cultural phenomenon than a clinician-related phenomenon.

If this pathway is correct and the prevalence of mental disorders across ethnicities is an epidemiological circumstance, then it is incumbent upon mental health researchers to determine an etiology resulting in this phenomenon. For example, perhaps certain ethnic groups lack mental health services in their environment. Perhaps due to lower socio-economic status persons of color do not have health insurance or mental health insurance coverage in particular (or cannot afford co-payments associated with insurance that they do carry). Perhaps mistrust of mental health services by minority groups, and
heightened stigma among some ethnic subcultures, inhibits these clients’ from seeking mental health treatment when necessary. For example, a recent national report on the state of mental health in the United States (U.S. Surgeon General Report, 2001) explained that African Americans with mental health needs are less likely than those of other racial groups to obtain adequate treatment.

In order to help researchers and clinicians effectively both study and treat clients of different cultural backgrounds, the DSM (APA, 2000) provides information about prevalence rates and course of disorders as they related to certain ethnic groups (when this information is available). These statistics, gathered from many sources over years of empirical investigation by a plethora of researchers, suggest that some mental disorders may actually vary in prevalence according to race. For example, the DSM states that “cultural differences have been noted in the presentation, course, and outcome of schizophrenia” (p. 307).

The Surgeon General’s report (DHHS, 2001) on mental health explained that racial minorities have less access to mental health services than do Euro-Americans; they are less likely to receive needed mental health care; and when they receive the care, it is likely to be of poorer quality. That is, social factors may contribute to the causation of ‘issues’ or ‘concerns’ evolving into more impairing mental illnesses. For example, racial minorities face a social and economic environment of inequality that includes more exposure to racism, discrimination, violence, and poverty (DHHS, 2001). Persons of color within the lowest socioeconomic status (SES) are two to three times more likely to have a mental disorder than individuals with a higher socioeconomic status, perhaps due to increased socio-cultural problems (DHHS, 2001). Rates of mental illness increase for
these “high-need” populations because of homelessness and incarceration. Thus, African Americans are deemed a high-need population due to socio-cultural vulnerability. For example, African Americans comprise 12% of the U.S. population but represent 40% of the homeless population (DHHS, 2001). Moreover, Hudson (2005) investigated a population of individuals in a psychiatric hospital in Massachusetts between the years 1994-2000. The purpose of this study was to see if socioeconomic status correlated with a risk of mental illness. Bivariate analyses suggest that the poorer one’s socioeconomic status, the higher one’s risk for mental disability and psychiatric hospitalization. These results indicated a social causation phenomenon such that, individuals with lower income, poorer education, and more ‘blue-collar’ occupation may be at higher risk of for developing a mental illness.

Scheffler and Miller (1989) examined African Americans, Hispanic Americans, and Euro-Americans regarding patterns of hospitalization taking into account socioeconomic status, age, and salary. Results indicated that African Americans were 23.5% and Hispanics 13.5% more likely than Euro-Americans to use hospitalization. Snowden and Cheung (1990) support this notion suggesting that African Americans were found to be hospitalized more frequently than Euro-Americans. For instance, poor areas with a high proportion of ethnic minority residents generally lack the needed resources to obtain mental health coverage (Chow et al., 2003) resulting in less access to mental health care. One possible explanation for this is neighborhood poverty resulting in less use and access to mental health services for ethnic minority clients.

As stated above, ethnic minority clients often have less access to mental health care than Euro-Americans. One-fourth of African Americans are uninsured (Brown,
Fouad, Basen-Enquist, & Tortolero-Luna, 2000), a percentage 1.5 times greater than the Euro-American rate (DHHS, 2001). Less access may be the result of the working poor who may not qualify for public mental health coverage (e.g., Medicaid). Doty and Holmgren (2006) investigated the gaps in health care coverage for ethnic minority adults on the Commonwealth Fund Biennial Health Insurance Survey in 2005. Results suggested that uninsured rates for African American and Hispanic American adults are up to three times greater than the rate for Euro-American adults. Moreover, nearly one third (33%) of African Americans were uninsured at some point during the year 2005 compared with only 20% of Euro-Americans (Doty & Holmgren, 2006). As African Americans are less likely than Euro-Americans to have health insurance, they are more likely to receive a lower quality of care when treatment is received (Snowden & Pingitore, 2002). For example, one study using a national sample showed that African Americans were less likely than Euro-Americans to receive guideline-based care for depression or anxiety (Wang, Berglund, & Kessler, 2000). Snowden (1998) suggested that managed care continues to prevent ethnic minority persons from making productive use of mental health treatment. That is, because of language barriers, sociocultural background, and risk for expensive hospital-based care, minority clients may be more costly to serve.

Another obstacle to accessing mental health care may be the attitudes of mental illness among African Americans. For example, Sussman, Wagner, and Earls (1987) report that African Americans were 2.5 times more likely to fear mental health treatment than Euro-Americans. That is, this fear may result in stigma associated with the mental health system in general. Thus, utilization of mental health services also differs among
African Americans with mental health needs are less likely than Euro-Americans to receive treatment (DHHS, 2001). Moreover, mistrust with the mental health system may develop because of this lack of utilization (Whaley, 2001). For example, African American men with high levels of distrust or paranoia may be less likely to seek help for mental health problems because of the associated stigma involved within the community (Whaley, 2004b).

Figure 2 outlines a second conceptual pathway related to the literature summarized above. In short, this hypothesized pathway links differential diagnoses of certain mental disorders to certain ethnic groups as a consequence of socio-cultural differences in living environments and lifestyles. As shown in Figure 2, this conceptual pathway involves a six-step process.

First, a client of color experiences psychosocial issues, concerns, distress, or impairments. Next, in part because insurance coverage or mental health treatment resources are limited, access to mental health care is reduced. Third, due to mistrust of the healthcare system and sociocultural stigma associated with mental health treatment in their community, the client does not seek alternative forms of professional assistance. Over time symptomatology worsens and global functioning declines. Then, when the client ultimately presents for treatment, whether voluntarily or involuntarily, extreme distress or social impairments are evident. Finally, the clinician correctly diagnoses the client of color with a particular mental disorder (e.g., schizophrenia, conduct disorder, etc.).
Figure 2. Conceptual pathway for potential socio-cultural factors related to the clinical decision-making process.

It should be noted that the two conceptual pathways proposed above were based on the researcher’s literature review, in combination with speculation about the results of this study. However, other conceptual pathways may have credence related to the phenomenon of race and mental disorder diagnoses. For example, another potential pathway may be evident, one that includes simple lack of cultural awareness on the part of the clinician. Perhaps clinicians genuinely believe that clients are displaying more severe symptoms but are simultaneously unaware of culturally acceptable behaviors...
within that individuals’ own unique culture. Thus, this third pathway may be related to a clinician’s misunderstanding and not racial diagnostic bias. As the DSM-IV-TR explains, symptoms of mental disorders must be maladaptive for the individual’s culture (rather than culturally accepted or expected behaviors). This third pathway, if supported by empirical evidence, would certainly have major implications for professional training.

Implications for Clinical Practice

Despite the enormous amount of literature on the topic of race and culture in therapy, little consistent and reliable information is available to mental health professionals. However, there are several pathways for mental health professionals to take in becoming culturally sensitive in the diagnostic process. One such pathway involves reducing racial bias through multicultural training and skills. Sue, Arredondo, and McDavis (1992) provided three racial competencies as a framework when assessing individuals from different races. The first stage involves counselor awareness of their own assumptions, values, and biases. This stage includes counselors being aware of their own cultural background, attitudes, values, and biases and how it may influence the therapeutic process. The second stage includes understanding the worldview of the culturally different client. That is, counselors need to possess the specific knowledge and information about the particular group they are working with. Perhaps, attending continuing education courses related to multiculturalism or gathering specific information related to ethnicity may enhance the counselor’s competence in working with racially diverse individuals. The third stage includes developing appropriate intervention strategies and techniques. For example, counselors’ being able to engage in a variety of
verbal and non-verbal helping responses and attend to eliminating potential biases, prejudices, and discriminatory practices.

Dana (1998) suggested that a widespread cultural assessment is necessary to work with any client because culture may directly affect clinical presentation and counselor perceptions. For example, understanding the context of a client’s life and perceptual meaning may facilitate the therapeutic relationship and promote comprehensive care. Furthermore, the use of culturally sensitive interpersonal skills is vital to any cultural assessment. That is, Sue and Sue (2003) suggested that changing the interview style (e.g., personal space, eye contact) to the cultural norms of the client may be valuable in facilitating a culturally sensitive interview and recognition of the client’s problem. Thus, to be sensitive to cultural issues it is important for the counselor to modify and adjust to the client during the interviewing process.

Kress, Eriksen, Rayle, and Ford (2005) developed six practical guidelines for becoming culturally sensitive in DSM diagnosis. First, assess the client’s worldview. That is, how the client views their world from a social and ethical perspective involving their own values, beliefs, and assumptions. Thus, counselors need to be aware of their own understanding of the client’s cultural beliefs and values. Next, assess the client’s cultural identity. It is important for counselors to understand the client’s sense of cultural identity. That is, not presuming that even though two comparable clients may have similar worldviews, their cultural identities may differ substantially. Then, assess sources of cultural information relevant to the client. That is, obtaining information about the client through consultation, professional development activities including reading articles or books related to the client’s specific culture. Fourth, include an assessment of the
cultural meaning of a client’s problem and symptoms. For example, understanding the client’s beliefs about the development of the problem because the views of mental illness may vary in different cultures. Fifth, assess the impact and effect of family, work, and community on the complaint. Thus, explore the socio-cultural dilemmas (e.g., low socioeconomic status) that some cultures have related to others. Finally, assess stigmas associated with the problem or issue. For example, it is important for the counselor to learn about the client’s experiences with stigma, racism, and prejudice and to recognize their reactions to these experiences.

Eriksen and Kress (2005) suggested that counselors should be cautious in making diagnostic decisions about individuals from cultures different from their own. The DSM-IV-TR (APA, 2000) also suggested that the diagnostic assessment process may be challenging when cultural classifications are used, and that therapists who are not acquainted with the distinction of an individual’s culture may mistakenly judge as pathological normal differences in culturally permissible behavior. Thus, Guindon and Sobhany (2001) reported that the accuracy of diagnosis and the effectiveness of the clinical intervention depended on many factors including genetic, temperamental, biological, developmental, social, psychological, ethnic, and cultural influences. Counselors need to be aware of these factors when assigning a DSM diagnosis.

For example, a cognitive-behavioral approach was recommended for persons of color because of its active and present orientation (Ponterotto & Casas, 1991). Therefore, these recommendations for cultural assessment should be addressed prior to assigning diagnoses to clients of racially diverse backgrounds.
A second pathway involves sociocultural ways by which clinicians can work more affectively through advocacy, social justice, and social change. Advocacy can be defined as “the process or act of arguing or pleading for a cause of proposal” (Lee, 1998, p. 8). What this means is that counselors need to become agents of social change, not just for their clients but in the world around them. Atkinson, Morten, and Sue (1993) described advocacy as the counselor who speaks on behalf of the client, often confronting the sources of oppression that are contributing to the client’s dilemma or source of frustration. That is, counselors can advocate by being involved in their local, state, and national counseling associations and chapters and advocating at the governmental level through contacting one’s senator on issues related to their client’s or the counseling profession.

Lewis and Lewis (1977) identified four ways that counselors can work on behalf of culturally diverse clients. That is, the counselor can assess community needs, coordinate activities and resources, provide skill building, and advocate change. For example, a counselor could provide a workshop on the positive impact of therapy to help reduce stigma associated with psychological distress. Moreover, Atkinson et al. (1993) pointed out that it is important for the counselor to get out of the office and meet the client in the client’s community. Thus, individuals may go unserved unless counselors reach out to them in their own community, perhaps by providing pro bono services through community agencies. Therefore, Schwartz and Feisthamel (in press) suggested that counselors should be aware of their own potential biases so that clinical diagnoses are made with objectivity and that counselors need to be aware of the social roots of mental illness and various cultural responses to symptoms of mental disorders.
Implications for Training and Supervision

Carter (1995) suggested providing didactic courses involving a racial-cultural counseling lab experience that consists of small and a large group discussion, lectures, and skill-building sessions. Thus, the course may provide insight into the role of racial and social factors in the development of relationships in counseling. For example, the purpose of the class would be related to each individual student as a racial person who brings in to the counseling process his/her own personal racial identity (Carter, 1995). More importantly, the lab experience would consist of group experiences in which students use a structured interview and observe intergroup differences. Thus, incorporating a DSM course specifically related to race could be helpful in the clinical decision making process.

The Council of Accreditation of Counseling and Related Educational Programs (CACREP, 2001) reported that counselors need to understand one’s own cultural identity and the role of discrimination, racism, or prejudice in their own lives. This component is essential for the training of competent clinicians. Furthermore, counselors need to be aware of cultural bias in assessment, implementation, and interpretation of treatment related to the needs of differing cultures. This is especially true when assigning a clinical diagnosis. The American Counseling Association’s Code of Ethics (American Counseling Association [ACA], 2005) specifically stresses the importance of proper diagnosis (section E.5.a), cultural sensitivity in diagnosing mental disorders (section E.5.b.), and the historical and social roots of prejudice related to diagnosis (section E.5.c) and refraining from diagnoses if one believes it would cause harm to the client (section E.5.d) training in diagnostic sensitivity is warranted.
CACREP (2001) further reported that counselors need to identify strategies supporting client advocacy in public policy, equity, and accessibility. That is, supporting client advocacy on local, state, and national levels and increasing funding to promote programs that affect mental health in general. An example would be providing community mental health services that are culturally appropriate to multicultural populations (CACREP, 2001).

These strategies may be incorporated into various counseling classes so that this type of knowledge can be integrated into the counseling curriculum. For example, the DSM class which is a required class for some CACREP-accredited programs (CACREP, 2001) could include information about the results found in this and similar studies. A first step could include sharing the knowledge of these analyses and results related to the diagnostic process of individuals from different cultures. In this way beginning master’s students could learn in the DSM course that diagnostic disparities exist among different ethnic groups, and various conceptual pathways may be etiologically related to this phenomenon specifically incorporating into the syllabus time to discuss how to understand one’s own biases and the necessary skills to be competent clinicians when assigning DSM diagnoses. One example may include providing case studies to students related to race and diagnosis. One group may receive a case related to an African American client diagnosed with schizophrenia but the symptoms are related to major depression. Nest, asking the question: what diagnosis would you assign? Another group may receive a case related to a Euro-American client diagnosed with major depression but is displaying symptoms of schizophrenia, again what diagnosis would you assign? A third group could receive an Asian American clinician with an African American client.
Related to the description of the case, is the clinician being attentive to the client’s culture. Questions related to this example may be addressed by following Kress et al.’s (2005) model of becoming culturally sensitive in the diagnostic process. Thus, there are many ways for counselor educators to incorporate the results found in this study into the counseling curriculum.

Constantine and Ladany (2001) provided six dimensions for supervisors to use in conceptualizing supervisees’ competence with individuals from diverse cultural backgrounds. The first dimension is self-awareness, and this refers to the supervisees’ ability to comprehend their own multicultural identities as well as biases associated with their personal socialization. The second dimension includes general knowledge about multicultural issues; that is, knowledge and understanding of cultural groups through multicultural theory, empirical research, books, and other clinical resources. The third dimension is multicultural psychotherapy self-efficacy that includes the supervisees’ self-confidence about the effectiveness of their multicultural therapy skills (e.g., eye contact, therapeutic relationship). Thus, it is important for supervisors to instill the trust of their supervisees in helping them establish cultural competency. The fourth dimension involves understanding the unique client variables associated with specific cultural groups; for example, recognizing the client’s personal traits, norms, values, willingness to disclose and motivation to change. The fifth dimension is the effectiveness of the therapeutic alliance. This dimension refers to Bordin’s (1979) model of the working alliance where the supervisee’s capability to create an emotional bond with clients and engage in culturally sensitive discussions when discussing the goals and tasks of therapy. The sixth dimension refers to understanding multicultural psychotherapy skills in which
supervisees are proficient in working with multicultural issues in therapy; for example, having the ability to discuss racial similarities and differences with their clients. Thus, to be able to enhance and assess these cultural dimensions outlined above, the supervisors must possess these same abilities themselves.

As Ladany, Friedlander, and Nelson (2005) explained, this point cannot be overstated and supervisors must possess more than the basic therapeutic skills. Moreover, Ancis and Ladany (2001) identified six domains of supervision competencies in working with culturally diverse clientele. The first domain includes the supervisor-focused personal development, which included the supervisor’s awareness of exploring and challenging biases and values in relation to supervision. Second is supervisee-focused personal development or the supervisor’s facilitation of self-awareness in the supervisee. For example, the supervisor may explore biases that are affecting the therapeutic alliance. The third domain includes conceptualization in understanding of client’s individual and contextual factors in the client’s life. Fourth is helping the supervisee learn new ways of providing effective racial and cultural interventions and assessment. The fifth domain is attending to multicultural processes in the supervisory relationship; for example, the ability for the supervisee and supervisor to discuss differences and similarities across all demographic situations. Sixth is the evaluation that includes the supervisor’s ability to assess the supervisee’s cultural competencies and recommend appropriate treatment strategies.

Limitations and Implications for Future Research

Although results of this empirical study showed that rates of mental disorder diagnoses differ among Euro-Americans versus African Americans, the research design
employed was not without limitations. One limitation of this study involved the population sample utilized. That is, although the sample was large and was collected over a long period of time, the participants were from a homogenous geographic background (semi-urban area in one Southeastern state). Thus, the external validity of these results may be limited. That is, since this study only examined persons from one Southeastern state during one specific time period, the inclusion of a sample population from different geographical areas is recommended for future studies.

A second limitation of this study included the diagnostician’s race. The vast majority of the counselors used in this study (all but one) were Euro-American and none was African American. Therefore, this study was essentially restricted to investigating rates of diagnoses among Euro-American and African American clients by licensed counselors from an ethnic majority group. Including a more diverse sample of licensed counselors, such as African Americans, Asian Americans, and Hispanic Americans should be included for future research. In this way researchers could more fully determine the scope of racially-related differential diagnoses. For example, if differential diagnoses were limited to Euro-American counselors (rather than those from other ethnicities), it may lend further credence to a racial bias pathway. If differential diagnoses were found to be common among counselors from various racial groups, it may lend support to a more (symptom-based) socio-cultural hypothesis for this phenomenon.

A third limitation noted in this study included a statistical weakness concerning the use of a large sample size with the data analyses employed. On occasions, chi square analyses may be overly sensitive to large sample sizes, thus increasing the chances of finding statistical significance (potentially resulting in a Type II Error). Thus, these
results should be viewed with caution. A fourth limitation involved the fact that this study was restricted to examining the relationship between having a DSM diagnosis and one’s ethnicity among only African American and Euro-American clients. Although this study focused on Euro-Americans and African Americans, it has been found that differential diagnoses exist in other racial groups as well. Expanding future research to include a more ethnically diverse sample of clients would be recommended. In this way, replication studies could investigate whether or not the findings reported here hold true for Asian American, Hispanic American, Native American, bi-racial, or multi-racial clients.

A fifth limitation of this study was related to the small effect sizes found in the statistical analyses. That is, the impact of the relationship between the independent variable and dependent variable was small. Although the effect sizes found in this study (.087 and .104) were statistically significant and are congruent with previous research in this area (e.g., effect sizes reported by Flasketrud and HU [1992] ranged from .06 to .11), the strength of the relationship was somewhat weak. A final limitation noted in this study involved the fact that broad diagnostic categories were included (e.g., childhood disorders, adjustment disorders, and substance-related disorders) rather than specific and independent diagnoses. Therefore, it is unclear if any one particular diagnosis (e.g., Major Depressive Disorder or Schizophrenia) is assigned to clients of one racial group more often than another racial group. Thus, future research on this phenomenon should focus on specific DSM diagnoses, as well as other diagnoses not studied here (e.g., anxiety disorders and personality disorders).

Further recommendations for future research in this area, based on limitations of previous studies, include the following: (1) inclusion of professional counselors as
diagnosticians and additional transparency of diagnosticians’ professions and training (Kales et al., 2000; Lawson et al., 1994; Sohler & Bromet, 2003); (2) use of the most updated (i.e., DSM-IV-TR) diagnostic criteria (Adebimpe, 1994; Flaskerud & Hu, 1992; Harvey et al., 1990; Richardson et al., 2003; Thomas et al., 1993); (3) use of sample sizes large enough to ensure adequate statistical power; and (4) reporting of effect sizes and confidence intervals when describing statistical analyses.

Due to the fact that among some clinicians racial bias may be unavoidable at times during the diagnostic process, it may be necessary for future researchers to work in research teams that are composed of at least one representative from each cultural group (Atkinson et al., 1993). For example, if a researcher wanted to conduct a study on the effectiveness of Euro-American and African American counselors with African American and Euro-American clients, perhaps including an Asian American and Native American as well as an African American and Euro-American investigator would be most beneficial. Furthermore, future researchers should attempt to separate the diagnostic categories into specific DSM diagnoses during data analyses (Schwartz & Feisthamel, in press). For example, in this study, many specific diagnoses were grouped into diagnostic categories (e.g., the category ‘substance-related disorders’ included specific diagnoses of Alcohol Abuse, Cocaine Dependence, and other specific subtypes). Moreover, this is only the second empirical study ever regarding differences in DSM diagnoses according to race with professional counselors. For example, as Schwartz and Feisthamel point out, future research may include personality disorders and cognitive disorders.

Thus, a review of the literature revealed two potential hypotheses for the differential rates of DSM diagnoses according to race. Thus, it is important for future
researchers to determine or solidify the results in this study compared to the two potential theories of racial bias and socio-cultural factors. One possibility could include using a quasi-experimental design with standardized client symptomatology (Schwartz & Feisthamel, in press). Researchers could create role-plays of clients from various ethnicities expressing symptoms of certain mental disorders during the diagnostic interview.

Another alternative for future researchers may include a qualitative analysis. Qualitative research seeks to understand and interpret how the various participants in a social setting construct the world around them (Glesne, 2006). That is, the focus involves in-depth, long-term interactions with people where the research becomes the main research instrument as one observes, asks questions, and interacts with the research participants (Glesne, 2006). Relevant to this study, a qualitative project may be used to understand the interaction among clinicians and clients; for example, conducting a few case studies in which the researcher can gather data and provide interviewing through observation of the diagnostic process; that is, by observing the client and clinician meet (e.g., establishing a therapeutic alliance), reviewing the client’s chief complaint, reason for seeking treatment and asking relevant questions related to the client and clinician. Several in-depth questions related to the client may be: did you feel comfortable in session (e.g., helping to reduce stigma associated with seeing a clinician), do you believe the clinician understood your problem, and did the clinician seem culturally sensitive to your needs. On the other hand, some research questions to ask the clinician that may mirror the client’s questions may be: what is the chief complaint, what are the clinical symptoms, were you sensitive to the client’s culture, and how did you determine a DSM
diagnosis. Thus, qualitative research may be useful in helping to reduce bias within the clinical decision-making process and help reduce the stigma associated with seeking mental health treatment.

Summary of Discussion

Because of the statistically significant results reported in Chapter IV, this chapter described two conceptual pathways related to the differential diagnosis of persons of color. One pathway included racial bias and the other pathway included socio-cultural factors. Implications for clinical practice were discussed including racial and cultural competencies to help reduce racial bias and advocacy (e.g., social justice) issues related to increasing awareness of socio-cultural factors. Furthermore, implications for training and supervision were described suggesting a separate DSM course, group discussions, and a conceptual framework for supervisors. Finally, limitations and implications for future research were discussed describing separate diagnostic categories, more diversity among clinicians, role-plays, quasi-experimental studies and qualitative research.
REFERENCES


APPENDICES
APPENDIX A

INTERVIEW GUIDE FOR EVALUATING DSM-IV PSYCHIATRIC DISORDERS AND THE MENTAL STATUS EXAMINATION

(by Mark Zimmerman, M.D. based on the SCID-I)

SUBSTANCE-RELATED DISORDERS

Alcohol Abuse/ Dependence

The following questions deal with the time you were drinking the most, and having the most problems with drinking.

A. *Alcohol Abuse*

A1. Because of drinking, how often did you….
   …Miss work (or school)?
   …Have trouble at work (or school)?
   …Get fired (or suspended or expelled from school)?
   …Not take care of children?
   …Not cook, clean the house, or go grocery shopping?

A2. Did you drive while intoxicated? IF YES, How often?
Did you ever drink and then do something that was potentially physically dangerous (e.g. operate machinery)?

A3. Were you ever arrested for driving under the influence, or disorderly conduct? IF YES, How many times?

A4. Because of your drinking did you….
   …Frequently have problems or arguments with friends or family?
   …Spend less time with family or friends?
   …Get separated or divorced?
   …Get into physical fights?
   …Get violent?
IF YES TO ANY: Did you still drink despite these problems?

B. *Alcohol Dependence*

B1. Over time did you drink a lot more to get high or get the same effect as before?
   IF YES: How much more?
   Did you develop a tolerance to alcohol so that the same amount as previously did not have the same effect?

B2. Did any of the following occur when you quit or cut down your drinking:
   …Heart racing or sweating
   …The shakes
   …Nausea or vomiting
   …Seeing, hearing, or feeling things that weren’t really there
     (hallucinations)
   …Feeling fidgety, restless, or agitated
   …Anxiety or nervousness
   …Seizures
   IF YES TO ANY: How soon after you quit or cut down did the (symptom) begin?

   Did you often drink or take anything else to stop withdrawal symptoms, or to prevent them from coming on? (Did you drink in the morning to keep withdrawal symptoms from coming on?)

B3. When you drank, did you often drink more than you had planned?
   When you drank, did you often drink for more time than you had planned?

B4. Did you frequently think about cutting down or stopping drinking?
   IF YES: How much did you think about?
     For how long did you think about that? (Week? Months?)
   At times, did you try to cut down or stop but couldn’t?
   IF NO: For example, some people try to control their drinking by promising not to begin before a certain time or not to drink alone? Did you ever do things like that?
   IF YES: How often would you try to cut back or stop completely?

B5. Did you spend a lot of time doing things and planning ways to get alcohol?
   IF YES: Was this number one thing on your mind?
   How much time did you spend drinking?
   How often were you intoxicated?
   Did you spend a lot of time recovering from hangovers?
B6. Did you spend so much of your time drinking that you…
…Missed a lot of time from work?
…Spent less time with family or friends?
…Gave up some hobbies or interests?
IF YES: Tell me about that.

B7. Did drinking cause physical problems?
IF YES: Like what? Did you continue to drink despite these problems?
Did drinking cause anxiety or depression?
IF YES: Did you still drink anyway?
Did drinking cause any other type of psychological problem?
IF YES: Like what? Did you continue to drink despite these problems?

Drug Abuse/ Dependence

A. Drug Abuse

A1. Because of your (DRUG) use, how often did you…
…Miss work (or school)?
…Have trouble at work (or school)?
…Get fired (or suspended or expelled from school)?
…Not take care of children?
…Not cook, clean the house, or go grocery shopping?

A2. Did you frequently drive while high on drugs? IF YES: How often?
Did you ever use drugs and then do something that was potentially physically dangerous (e.g. operate machinery)?

A3. Were you ever arrested or busted for using or selling drugs?
IF YES: How many times?

A4. Because of your (DRUG) use did you…
…Frequently have problems or arguments with friends or family?
…Spend less time with family or friends?
…Get separated or divorced?
…Get into physical fights?
IF YES TO ANY: Did you still use drugs despite these problems?

B. Drug Dependence

B1. Over time did you drink a lot more to get high or get the same effect as before?
IF YES: How much more?
Did you develop a tolerance to (DRUG) so that the same amount as
previously did not have the same effect?

B2. Amphetamine/stimulant or cocaine withdrawal
Did any of the following occur when you quit or cut down on your use of
(SUBSTANCE):
Depressed, irritable, or anxious mood
...Fatigue
...Vivid, unpleasant dreams
...Increased or decreased sleep
...Feeling very slowed like you were stuck in mud, or the reverse, feeling
restless and agitated
IF YES TO ANY: How soon after you quit or cut down did the (symptom)
begin?
Did you often use drugs to stop withdrawal symptoms or to prevent them
from coming on?

B2. Opioid withdrawal
Did any of the following occur when you quit or cut down on your use of
(SUBSTANCE):
...Depressed or irritable mood
...Nausea or vomiting
...Muscle aches
...Tearing or runny nose
...Dilated pupils, goose bumps, or sweating
...Diarrhea
...Yawning
...Fever
...Decreased sleep
IF YES TO ANY: How soon after you quit of cut down did the
(SYMPOTOM) begin?
Did you often use drugs to stop withdrawal symptoms or to prevent them
from coming on?

B2. Sedative, hypnotic, or anxiolytic withdrawal
Did any of the following occur when you quit or cut down on your use of
(SUBSTANCE):
...Heart racing or sweating
...The shakes
...Sleep problems
...Nausea or vomiting
...Seeing, hearing, or feeling things that weren’t really there
(hallucinations)
…Feeling fidgety, restless, or agitated
…Anxiety or nervousness
…Seizures
IF YES TO ANY: How soon after you quit of cut down did the (SYMPTOM) begin?
Did you often use drugs, or drink alcohol, to stop withdrawal symptoms or to prevent them from coming on?

B3. When you used (DRUG), did you often use more than you had planned?
When you used (DRUG), did you often use it for a longer period of time than you had planned?

B4. Did you frequently think about cutting down or stopping your use of (DRUG)?
IF YES: How much did you think about that?
At times, did you try to cut down or stop but couldn’t?
IF NO: For example, some people try to control their drug use by promising not to begin before a certain time or not to use drugs alone? Did you ever do things like that?
IF YES: How often would you try to cut back or stop completely?

B5. Did you spend a lot of time doing things and planning ways to get drugs?
IF YES: Was this the number one thing on your mind?
How much time did you spend using (DRUG)?
How often were you high?
Did you spend a lot of time recovering from using (DRUG)?

B6. Did you spend so much of your time getting high that you….
…Missed a lot of time from work?
…Spent less time with family or friends?
…Gave up some hobbies or other interests?
IF YES: Tell me about that.

B7. Did using (DRUG) cause physical problems?
IF YES: Like what? Did you continue to use (DRUG) despite these problems?
Did using (DRUG) cause anxiety or depression?
IF YES: Did you still use (DRUG) anyway?
Did using (DRUG) cause any other type of psychological problem?
IF YES: Like what? Did you continue to use (DRUG) despite these problems?
CHILDHOOD DISORDERS

Attention-Deficit/ Hyperactivity Disorder

A1. **Inattention**

(1) Some kids have problems paying close attention to things, and because of this they make a lot of careless mistakes in their schoolwork. Is this something you do?
   - IF YES: Does it happen a lot?
     - Does it affect your grades?
   - What about things around the house. Do you often make careless mistakes when doing chores around the house?
     - IF YES: Examples.

(2) Some kids have a hard time staying on track or keeping their mind on the things they are doing because they can’t pay attention to one thing for a long time. Is it hard for you to pay attention to only one thing for a long time?
   - Is it hard for you to stick with one thing, even when it’s fun?
   - Is it hard to focus on a test or an assignment that lasts an entire period?
   - Is it hard to play a game that lasts a long time like Monopoly?
   - IF YES TO ANY: Do you frequently have difficulty focusing on one thing for a long time?
     - Does your poor attention span cause you difficulties?

(3) How good are you at listening to what your parents or teachers say to you?
   - Do your teachers say that you don’t listen when they talk to you?
   - Do they have to ask you the same thing over and over before you listen?
   - What about your parents. Do they often have to repeat what they say to you?
   - Do they sometimes say you “must be deaf?”
   - IF EVIDENCE OF POOR LISTENING: How often does this happen?

(4) Some kids have difficulty finishing things. Is that true of you?
   - Is it hard to finish your homework or schoolwork, even when you know how to do it?
     - IF YES: Is it hard to stick with it, or do you stop doing it because you don’t like doing it?
   - What about things around the house. Do you start doing them and leave in the middle?
     - IF YES: Is it hard to stick with it, or do you stop doing it because you don’t like doing it?

(5) Is it hard for you to be organized?
   - IF YES: Tell me about that.
   - Is it difficult for you to plan and organize your schoolwork?
IF YES: What happens?
Do you need your mom’s or dad’s help getting organized to do school projects?
IF YES: What happens?

(6) Some kids really hate doing schoolwork or homework because it is hard for them to concentrate on it for a long time. Are you like that?

(7) Do you lose things a lot?
At school do you frequently forget your pen or pencil, or leave your books or homework in the wrong place?
What about toys, keys, and money? Do you lose or misplace them a lot?

(8) Some kids fund it hard to keep their mind on things they are doing even when it’s fun. Is it hard for you to keep playing a game when you hear something in the next room?
How easy is it for someone to get your attention when you’re watching your favorite TV program?
IF DISTRACTED: So, is it hard for you to focus on one activity for a long time?
   Does this happen a lot?
   Does it happen at school? At home, too?

(9) Are you very forgetful?
What types of things do you forget to do?
Do you often forget to do things like brushing your teeth, washing your hands, changing your underwear?
IF YES: Is this forgetfulness, or is it that you don’t like doing these things?

A2. Hyperactivity-Impulsivity

(1) Is it hard for you to sit still?
Is it hard to sit still while watching television, playing a game, or doing homework, or while you’re sitting in class at school?
Has anyone ever said that you can’t seem to sit still, or that it seems like you have “ants in your pants?”

(2) Is it hard for you to stay in your seat in school?
Do you get out of your seat a lot when you’re not supposed to?
IF YES: Tell me about that.
   Have you gotten into trouble for it?
Do you stay in your chair during all of breakfast or all of dinner, at home or at a restaurant, or do you get up a lot?

(3) Do you run around the house or climb on furniture a lot?
Do you climb on desks or other things in school?
Do you jump down the stairs or run down the halls?
IF YES TO ANY: Tell me about it.
Do your teachers/parents often have to tell you to stop running so much?
Do you get into trouble for this? Does it happen a lot?

(4) Do your parents frequently tell you to quiet down when you play?
Are you nosier than other kids your age?
Is this a problem at school?

(5) Are you often on the go, doing something?
Are you more active than other kids your age?
Does it feel like there’s a motor inside you that keeps you going all the time?

(6) Do you talk a lot?
IF YES: More than other kids?
Do your parents or teachers say that you’re a chatterbox because you never stop talking?

(7) When your teachers ask questions in class do you tend to answer the questions out loud before the teacher has a chance to finish asking it?
IF YES: How often does this happen?
Has your teacher spoken to you or your parents about this?

(8) For some kids it is hard for them to wait their turn when playing games. Is this hard for you?
IF YES: What problems does this cause?
Is it hard for you to wait in line in stores, or going to movies, or other activities where you have to wait in line?
Do you often try to cut in line?
When you eat with your family is it hard for you to wait to get served?
IF YES: Do other people get angry with you because of this?

(9) Do your parents get angry at you because you butt into their conversation?
Do your parents get angry because you interrupt them while they’re on the phone?
IF YES: Does this happen a lot?
  Do other kids tell you to leave them alone so they could to their work?
  Do you butt into other kids games before they ask you to play?

B. Time course not established: How old were you when you began (BEHAVIORS NOTED ABOVE)? What problems did this cause?
**Conduct Disorder**

Now I’m going to ask you about some different types of behaviors that sometimes get children and teenagers into trouble.

A. *Aggression to people and animals*

A1. Do you pick on other kids?
   IF YES: How often?
   Do you pick on kids that are younger or smaller than you?
   Describe.
   Are you a bully?
   Do you ever threaten other kids so they will buy you things, give you money, or do other things for you?
   IF YES: How often? Describe.

A2. Do you get into many fights? (More than other kids?)
   IF YES: How often?
   How often do you start the fights?

A3. Have you ever used a weapon in a fight?
   IF YES: What did you use?
   For what reason?
   How often did that happen?

A4. Have you hurt people physically?
   IF YES: What did you do to them? For what reason?

A5. Have you ever hurt, tortured, or killed an animal?
   IF YES: What did you do?
   Do you have a pet?
   IF YES: Did you ever deliberately hurt it?

A6. Have you ever taken things from people like snatching a purse, jewelry, or chains?
   Have you ever held anyone up, or robbed a store?
   Have you ever threatened anyone if they didn’t give you money?

A7. Have you ever forced anyone to have sex with you?
   Were you ever part of a group or gang that forced someone to have sex against his/her will?
   IF YES: Tell me about that.

A8. Have you ever set things on fire?
   IF YES: Why?
A9. Have you ever damaged someone’s property by breaking windows, spraying graffiti, on walls, or other things like that?
   IF YES: What did you do?

A10. Have you ever broken into anyone’s house, a store, building or car?
    IF YES: For what reason?
    Did you do it alone or with someone?

A11. Sometimes kids don’t tell the truth; they make up stories. Do you make up stories that aren’t truthful?
    IF YES: What kinds of things do you make up stories about?
    Do you tell a lot of lies?
    IF YES: Do you lie a lot or a little?
    Do you often lie to get things that you wanted?
    Do you often lie to avoid chores or other responsibilities?

A12. How often have you stolen from stores, your parents, or other people?
    IF YES: What did you steal?
    What’s the most you have stolen?
    Did you ever get caught stealing?
    IF YES: What happened?
    Did you ever pick someone’s pocket, write a forged check, or use a credit card without permission?

A13. Do you argue with your parents about how late you could stay out at night?
    Do you often stay out later than they said you could?
    Did you ever stay out all night?
    IF YES: How old were you when you first began doing this?

A14. Did you ever run away from home overnight?
    IF YES: How often?
    How long did you stay away?

A15. Have you ever played hooky or skipped school?
    IF YES: How many time did you do it?
    Did you get in trouble for it?
    How old were you?
    How old were you when you started to skip school?
Oppositional Defiant Disorder

A1. What happens when you get angry and mad?  
   Does this happen a lot?  
   Do you have a bad temper?  
   IF YES: Tell me about that.  
   Is your temper so big that you can’t stop it?  
   Do you have temper tantrums?  
   IF YES: What causes them?  
      How often do you have them?

A2. Do you frequently argue with your parents or teachers?  
   IF YES: About what?  
      Do you always find something to argue about?

A3. Is it hard for you to follow rules?  
   Do you think that most rules are pretty stupid?  
   IF YES: Tell me about that.  
   Do you like to break rules on purpose?  
   Do you often say no when your parents or teachers ask you to do something?  
   IF YES: Like what?

A4. Do you like to do things that annoy or bother other people?  
   IF YES: Like what?  
      How often do you do things like that?

A5. Is it hard for you to admit that you are wrong when you make a mistake?  
   Do you blame people for your mistakes?  
   Do you blame other people when you misbehave or get into trouble?

A6. What do your parents or teachers do that bothers you?  
   Is it easy for others to annoy you?

A7. Do you feel angry a lot of the time?  
   IF YES: Why is that?  
   Does it often bother you that other people boss you around or tell you what to do?  
   IF YES: Tell me about that.  
   Do you think that you are treated unfairly?  
   IF YES: By whom? In what way?

A8. IF YES TO ANY QUESTION IN # 7  
   What do you do about ________?  
   How do you get back at ________?
B. You mentioned that you (BEHAVIORS FROM ABOVE)
What problems did this cause?
Does it cause problems at school?
Has it caused you to lose friends?
What about problems at home?
Have you ever seen a doctor, counselor, or anyone for this?

**ADJUSTMENT DISORDER**

A. Criteria: the development of emotional or behavioral symptoms in response to an
Identifiable stressor(s) occurring within 3 months of the onset of stressor(s)

A1. Did anything happen to you just before (ONSET OF CURRENT DISTURBANCE)?

   If YES: Do you think that (STRESSOR) had anything to do with you getting (SYMPTOMS)?

B. What effect have (SYMPTOMS) had on you and your ability to do things?
How upset were you?
Has it made it hard for you to do work or be with friends?
APPENDIX B

INSTITUTIONAL REVIEW BOARD FORM

Registration Form

Please complete this form if you propose to conduct a project that involves the collection of information about human individuals that meets one or more of the criteria for human subject research.

The project does not meet the Common Rule definition of research.

All data/specimens are about/from deceased individuals.

Results will be shared only with the client or stakeholder(s) for private use for evaluation of an established program or for other non-research purposes.

The project utilizes only data from secondary sources that are not individually identifiable.

The project is an internal evaluation intended for quality control of ongoing program only.

The project involves only survey activities, such as open ended interviews, that do not specifically ask for the experiences of individuals without consent to draw conclusions, generalize findings, or influence policy or practice.

Project Title: The Impact of Race on Mental Disorder Diagnoses Among Inpatient Clients with Adjustment, Substance-Related, and Childhood Disorders

Principal Investigator (PI): Kevin F. Feltman

PI Department: Counseling

PI Phone & Email: 330-972-1756, kf10@uakron.edu

Co-Investigators (list all co-investigators):

Faculty Advisor (if PI is a student): Dr. Robert Schwartz

Provide below a brief description of the purpose of this study and the type and source of the information on individuals that you will use.

I will investigate how race affects mental disorder diagnoses among inpatient clients. Specifically, the researcher will study whether counselors disproportionately diagnose adjustment, substance-related, and childhood disorders in patients of color versus Euro-American inpatient clients. Data will include de-identified demographic information (i.e., race, age, clinical diagnosis) for clients previously admitted to an inpatient mental health facility in a Southeastern state. Only data needed as part of this study (i.e., client race and diagnosis) will be used in statistical analyses. Identifying information will not be known to PI.

Investigator's Assurance

I certify that the information provided on this Registration Form is complete and accurate. I understand that as Principal Investigator, I am ultimately responsible for the ethical conduct of this project.

[Signature]

Date: 12-7-06

Faculty Advisor's Assurance

I certify that the student is knowledgeable about the regulations and policies governing the research and has sufficient training and experience to conduct this particular study.

[Signature]

Date: 12-7-06

[Signature]

Date: 12-6-06

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