# DISCRIMINATION AND IDENTITY: AN INVESTIGATION OF HOW CULTURAL CORRELATES RELATE TO THE EXPRESSION, EVALUATION, AND TREATMENT OF SOCIAL ANXIETY DISORDER

by

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# DEDICATION

To my clients, who are brave enough to let me into their inner worlds.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ABBREVIATIONS

| Abbreviation | Meaning |
|---|---|
| BFNE | Brief Fear of Negative Evaluation Scale |
| GAD | Generalized Anxiety Disorder |
| GSocAD | Generalized Social Anxiety Disorder |
| JVS | Jewish Vocational Services |
| MIBI | Multidimensional Inventory of Black Identity |
| MMRI | Multidimensional Model of Racial Identity |
| Mini-SPIN | Mini-Social Phobia Inventory |
| LSAS | Leibowitz Social Anxiety Scale |
| NCS-R | National Comorbidity Study-Replication |
| NSAL | National Survey of American Life |
| PTSD | Post Traumatic Stress Disorder |
| ROC | Receiver Operating Characteristics |
| SocAD | Social Anxiety Disorder |

# ABSTRACT

The purpose of this dissertation is to investigate how cultural and racial factors impact the evaluation, expression and treatment of social anxiety disorder (SocAD) in racial minority populations. This investigation involved three distinct, but related projects. The first project used the National Survey of American Life (NSAL), the most comprehensive study of black Americans in the U.S., to investigate how discrimination impacts SocAD at an epidemiological level. Previous work highlighted a strong association between discrimination and mental health symptoms, but few studies have examined the effects of particular types of discrimination on specific anxiety disorders among different black subgroups. In this study, logistic regression analyses indicated that everyday but not major experiences of discrimination are associated with SocAD for African Americans, Caribbean blacks and non-Hispanic whites.

The second project investigated cultural correlates of SocAD in a socio-economically deprived, largely minority, job-seeking population. This research built on an existing project in a vocational service setting led by Dr. Joseph Himle, which involved developing and disseminating a cognitive behavioral (CBT) group therapy intervention designed to enhance the employment success of people whose job attainment efforts have been undermined by the presence of SocAD. This study investigated how racial identity and experiences of discrimination relate to SocAD in this population. Our findings indicated that higher levels of racial discrimination and lower levels of private regard were associated with increased SocAD symptoms.

The third project in this dissertation evaluated whether the SocAD assessment procedures used at the vocational services center are functioning adequately in this low

income, largely minority population. Overall, the Mini-SPIN demonstrated sound psychometric properties in this sample, showing that it can be used as a screener in this population. Given the Mini-SPIN's brevity combined with ease of scoring and interpretation, it may be able to identify individuals in a variety of settings that may benefit from treatment. Taken together, this dissertation aims to understand SocAD in a culturally and racially sensitive context at both local and national levels to help demonstrate how cultural competence can inform the expression, assessment, and treatment of SocAD.

# CHAPTER 1

# INTRODUCTION

## 1.1 Social Anxiety Disorder

Anxiety disorders are the most pervasive class of mental health conditions, with 28.8% of individuals experiencing at least one anxiety disorder over the lifespan (Kessler et al., 2005). Social Anxiety Disorder (SocAD), also known as social phobia, is characterized by fear and/or avoidance of social or performance situations (American Psychiatric Association, 2000). Individuals with this condition are concerned that they will say or do something that will result in humiliation or embarrassment; these fears can be so severe that socially anxious individuals avoid most social encounters or endure interpersonal situations with extreme discomfort (Stein & Stein, 2008). Socially anxious individuals may or may not show overt evidence of discomfort, such as blushing or low eye contact, but do typically experience intense emotional/physical symptoms such as racing heart, difficulty concentrating, fear, or sweating (Stein & Stein, 2008). Additionally, SocAD is associated with higher levels of self-criticism and low levels of self-esteem (Cox, Fleet, & Stein, 2004). SocAD was once largely ignored by the psychiatric community (Stein, 1996), but has more recently garnered attention as an impairing but treatable condition (Schneier, 2006).

The DSM-IV distinguishes between generalized and non-generalized sub-types of SocAD, with generalized SocAD (GSocAD) referring to a more pervasive form of the illness, characterized by distress and avoidance in a wide variety of interpersonal situations (e.g., parties, meetings with colleagues, etc.) and non-generalized SocAD referring to a

person who is only anxious in specific social situations (e.g., public speaking only). GSocAD has been found to account for 50% of all SocAD cases, and individuals with GSocAD constitute the majority of whom seek treatment for the disorder (Kessler, Stein, & Berglund, 1998); it is also the more impairing form of the disorder (Katzelnick et al., 2001).

Persons with SocAD report impairment on a wide variety of dimensions. Social and vocational functioning are lower, and subjective quality of life and well-being are reduced (Stein & Kean, 2000b; Wittchen, Fuetsch, Sonntag, Müller, & Liebowitz, 2000). More specifically, individuals with social anxiety are more likely to be single or divorced, report unsatisfying interpersonal relationships, drop out of school at an earlier age, have reduced income, and experience impaired work performance (Acarturk, de Graaf, Van Straten, Have, & Cuijpers, 2008; Bruch, Fallon, & Heimberg, 2003; Ruscio et al., 2008). SocAD is more common among women, and it is associated with high psychiatric co-morbidity, most notably depression and substance abuse (Kessler, et al., 1998; Magee, Eaton, Wittchen, McGonagle, & Kessler, 1996; Ruscio, et al., 2008).

SocAD has a very early onset, with many cases beginning in childhood and early adolescence; this disorder often persists into adulthood, indicating the chronicity of SocAD (Chavira & Stein, 2005). SocAD has also been found to run in families (Stein & Stein, 2008), with studies investigating monozygotic and dizygotic twins indicating that SocAD is partially heritable and also partially resulting from negative social experiences (Stein, Jang, & Livesley, 2002). Although the causes and pathogenesis of SocAD is still not well-understood, progress is being made. For example, the amygdala is thought to be related to fear responses, and increased amygdala activation in response to emotional human faces

has been demonstrated in socially anxious individuals (Phan, Fitzgerald, Nathan, & Tancer, 2006; Schwartz, Wright, Shin, Kagan, & Rauch, 2003). Future work may help clarify the neural and environmental underpinnings of SocAD.

Despite the somewhat unclear etiology of SocAD, effective treatments do exist. Many randomized controlled trials indicate the efficacy of Cognitive Behavioral Therapy (CBT) and medications for SocAD (Fedoroff & Taylor, 2001; Stein, Ipser, & Van Balkom, 2000). Additionally, meta-analyses indicate that effect sizes are high for these treatments (Fedoroff & Taylor, 2001; Gould, Buckminster, Pollack, & Otto, 1997). However, one specifically challenging problem for SocAD treatment is that individuals with this condition often do not receive adequate treatment for a variety of reasons. In particular, socially anxious individuals may be ashamed of their symptoms, may inaccurately diagnosed, or may not know that their social fears are treatable (Katzelnick, et al., 2001). Data from the National Comorbidity Study-Replication indicate that only 24.7% of people with SocAD received specialty mental health services in the past year (Wang et al., 2005), indicating that most socially anxious individuals do not receive mental health services. As will be discussed in the next section, service utilization is even lower for minority populations with anxiety disorders (Neighbors et al., 2007), indicating that strong barriers such as stigma and access to treatment are common in a variety of populations.

### 1.2 Social Anxiety Disorder in the U.S. black population

While research clearly demonstrates that SocAD is impactful and impairing, the literature also indicates that mental health disorders affect diverse racial-ethnic groups differently. Understanding these differences in mental health disorders is particularly important, given the recent focus on addressing race-ethnic disparities in health care in the

United States (Services, 2000; Smedley, Stith, & Nelson, 2009). In the mental health realm, research indicates that U.S. black populations tend to have lower prevalence rates of mood and anxiety disorders compared to non-Hispanic whites (Breslau, Kendler, Su, Gaxiola-Aguilar, & Kessler, 2005). However, multiple national studies also indicate that while mental health disorders are less prevalent in minority populations, the course of the disorder tends to be more severe and persistent, indicating the complexity of investigating mental health conditions among minority groups (Breslau, et al., 2005; Himle, Baser, Taylor, Campbell, & Jackson, 2009).

The finding that blacks in the U.S. have lower levels of mood and anxiety disorders is a particularly intriguing finding, as social adversity (e.g., elevated rates of unemployment, lower socioeconomic status, exposure to racism) is often associated with a higher risk for psychiatric disorders (Dohrenwend, 2000), and U.S. black populations tend to have higher levels of social adversity (Clark, Anderson, Clark, & Williams, 1999; Turner & Lloyd, 2004). Researchers argue that the finding that the U.S. black population experiences lower levels of internalizing disorders suggests the presence of protective factors, perhaps originating in childhood, as the race-ethnic differences in internalizing disorders emerge at a young age (Breslau et al., 2006). Increased religiosity (Chapman & Steger, 2010) and racial identity (Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003) have been suggested as two additional coping mechanisms that are associated with decreased anxiety in African Americans.

Lower prevalence but increased persistence has also been found for African Americans and Caribbean blacks with SocAD (Breslau, et al., 2005; Himle, et al., 2009). Data from a study combining the National Survey of American Life (NSAL), the most

comprehensive study of black psychopathology to-date, and the National Co-morbidity Study- Replication (NCS-R), a nationally representative study of psychiatric disorders, indicate 12-month prevalence rates of 4.6%, 4.7% and 7.1% among African Americans, Caribbean blacks and non-Hispanic whites, respectively (Himle, et al., 2009; Jackson et al., 2004). Lifetime prevalence rates of SocAD are also lower among African Americans (8.4%) compared to non-Hispanic whites (12.6%) (Asnaani, Richey, Dimaite, Hinton, & Hofmann, 2010). However, socially anxious African Americans and Caribbean blacks also had higher levels of functional impairment, as defined by the World Health Organization Disability Assessment Scale (WHO-DAS-III). Specifically, they reported more days out of role, decreased productivity, lower levels of self-care, more problems with cognition, higher impairments in social functioning and increased family burden (Himle, et al., 2009). Furthermore, a significantly higher percentage of African Americans and Caribbean blacks were classified as having severe SocAD, compared to their non-Hispanic white counterparts (Himle, et al., 2009). These findings show that more work needs to be done to understand the etiology and pathology of SocAD in these groups.

Although research shows that SocAD is more impactful African Americans, treatment utilization is low among these groups (Jackson et al., 2006). NSAL data indicate that only 21.4% of African Americans and 5.1% of Caribbean blacks who met criteria for SocAD in the past year had sought specialty mental health treatment for their disorder (Neighbors, et al., 2007). African Americans are also less likely to seek out psychiatric care for their mental-health concerns than whites; results from the National Ambulatory Medical Care Survey indicated that 53% of mental health visits were made to a primary care physician and 32% to a psychiatrist for African Americans, compared to 44% of

appointments to a primary care physician and 42% to a psychiatrist for whites (Snowden & Pingitore, 2002). Barriers to treatment include a wariness of seeking institutional help, stigma about mental health conditions, and lack of financial resources such as insurance to cover treatment (Snowden, 2001).

Furthermore, even when individuals do seek specialty mental treatment, research suggests that African Americans and Caribbean blacks are not always satisfied with the services received. NSAL data indicate that the perceived helpfulness of mental health treatment and satisfaction with services needs to be improved (Jackson, et al., 2006). It may also be the case that African Americans receive a lower quality of care. A nationally representative study showed that African Americans with depression or anxiety were less likely than whites to receive care consistent with official practice guidelines (Wang, Berglund, & Kessler, 2000), and other investigators found that elderly African Americans were less likely to receive antidepressants compared to whites (Blazer, Hybels, Simonsick, & Hanlon, 2000). Thus, the literature indicates that more work needs to be done to make treatments both more accessible and more attractive for these groups.

### 1.3 Cultural competence and empirically supported treatments

Given the well-documented disparities in mental health treatment in the U.S., the field of "cultural comptetence" has emerged to help address these issues (Betancourt, Green, Carrillo, & Ananeh-Firempong, 2003). Bentacort et al. (2003) defines cultural competence as a system that "acknowledges and incorporates—at all levels—the importance of culture, assessment of cross-cultural relations, vigilance toward the dynamics that result from cultural differences, expansion of cultural knowledge, and adaptation of services to meet culturally unique needs" (p. 294). In general, therapist

openness to cultural concerns, collaborative goal-setting and culture-specific expertise has been found to improve therapeutic outcomes (Sue, 1998). The American Psychological Association (APA) has acknowledged the importance of cultural competency and has outlined guidelines for culturally competent practice (American Psychological Association, 2008), stating that psychologists have an ethical commitment to providing appropriate care for minority and underserved groups.

Given the increased focus empirically based interventions, the need to investigate the interplay between evidence-based practice and culturally competent practice is especially important (Whaley & Davis, 2007). Moreover, several meta-analyses also indicate that specifically tailoring therapy interventions to increase their relevance to client populations often increases treatment adherence and promotes symptom improvement (Betancourt, et al., 2003; Griner & Smith, 2006). While it may not be possible to tailor every aspect of an intervention to a specific culture, the literature and APA guidelines point to the importance of using research to identify cultural correlates mental health disorders in an attempt to improve treatment experiences for minority groups.

### 1.4 Dissertation summary and Synopsis of findings

This dissertation seeks to demonstrate how understanding racial and cultural factors can inform the treatment, assessment, and expression of SocAD in U.S. black populations. It aims to understand SocAD in a culturally sensitive context at both local and national levels. This dissertation is comprised of three separate, yet related projects. These three projects have been prepared in manuscript format; they have or will be submitted for publication in peer-reviewed journals.

In Chapter 2, the first study investigated the relationship between discrimination and SocAD in a sample of African Americans, Caribbean blacks and non-Hispanic whites using the National Survey of American Life, the most comprehensive study of psychopathology among American blacks to-date (n = 6082) (Jackson, et al., 2004). Previous work has highlighted a strong association between discrimination and mental health symptoms (Keith, Lincoln, Taylor, & Jackson, 2010; Kessler, Mickelson, & Williams, 1999; Soto, Dawson-Andoh, & BeLue, 2011). However, few studies have examined the effects of particular types of discrimination on specific anxiety disorders or among different black subgroups. The full impact of discrimination on specific anxiety disorders has not been well established at this point (Okazaki, 2009). The work that has been done, however, indicates that discrimination may be associated with particular anxiety disorders; for example, it has been linked to Generalized Anxiety Disorder but not to Post Traumatic Stress Disorder (Soto, et al., 2011).

The theory of racial battle fatigue states that repeated microagressions, or subtle attacks/invalidations due to one's racial/ethnic identification, in the social realm can lead to social-psychological stress responses (Smith, Allen, & Danley, 2007). The social-psychological stress responses described in Smith et al. (2007)'s work have considerable overlap with symptoms specific to SocAD (e.g., social withdrawal) and thus, led us to hypothesize that discrimination would predict SocAD. In Chapter 2, logistic regression analyses will be used to investigate this relationship.

In Chapter 3, the second study furthers the investigation of cultural factors associated with SocAD by investigating how racial identity and racial discrimination relate to SocAD symptoms. This study uses a sample of African Americans from a community-based

vocational rehabilitation center in Detroit (Jewish Vocational Service, JVS), which primarily serves an economically disadvantaged, African American clientele. Our research indicates there are high rates of SocAD among JVS's unemployed job-seeking clients. Participants with and without SocAD were recruited from JVS for Study 2 in this dissertation and completed approximately hour and a half long interviews which assessed for the presence of SocAD and investigated discriminatory experiences (n = 98).

Research has shown that racial identity and experiences of discrimination are related to mental health outcomes, indicating that multiple components of identity interact with perceived discrimination to have an impact on mental health symptoms (Sellers, Copeland-Linder, Martin, & Lewis, 2006). In particular, high levels of private regard (perceiving one's race positively) have been linked to lower levels of depressive symptoms (Sellers, et al., 2006). Additionally, another component of racial identity, low public regard (how one feels others perceive their race), was found to buffer against detrimental effects of experiencing discrimination (Sellers, et al., 2003; Sellers, et al., 2006). Theories about the development of social anxiety posit that it develops in people who have internal representations of the self that are based on how they believe they are perceived by others (Hope, Rapee, Heimberg, & Dombeck, 1990). In particular, research suggests that people with social anxiety view others as threatening and thus avoid social situations (Hope et al., 1990), leading us to hypothesize that racial identity and SocAD would be related. In this study, multiple regression analyses were used to investigate this relationship and implications for SocAD treatment are discussed.

In Chapter 4, the last study in this dissertation evaluated the cultural appropriateness of a SocAD screener, the Mini-Social Phobia Inventory (Mini-SPIN) in the low income,

largely minority population from JVS ( n = 201). The Mini-SPIN has demonstrated good reliability and validity (Connor, Kobak, Churchill, Katzelnick, & Davidson, 2001). However, the MINI-Spin has only been validated in college student populations and its utility has not been assessed in a largely African American, low income or low education population (de Lima Osório, Crippa, & Loureiro, 2007). Given the known relationship between joblessness and economic hardship and SocAD, it is especially important to improve assessment of SocAD in a low income, jobless population. We hypothesized that the Mini-SPIN would be appropriate in this sample. In Chapter 4, a Receiver Operating Characteristic Curve (ROC Curve), was used to investigate the appropriateness of the Mini-SPIN as a screener.

The overarching goal of this dissertation is to identify cultural factors associated with SocAD that may be incorporated into assessment strategies and treatment manuals. Specific suggestions for treatment adaptations and assessment plans are presented in the discussion sections of Chapters 2, 3 and 4. Given the recognized burden of SocAD in the U.S. (Magee, et al., 1996) and the low treatment utilization among black Americans (Neighbors, et al., 2007), investigation of these issues is highly significant. The hope is that by drawing from clinical science, social psychology and epidemiology, this dissertation will provide a multi-disciplinary investigation of several racial and cultural factors associated with social anxiety symptoms.

References

Acarturk, C., de Graaf, R., Van Straten, A., Have, M., & Cuijpers, P. (2008). Social phobia and number of social fears, and their association with comorbidity, health-related quality of life and help seeking. *Social Psychiatry and Psychiatric Epidemiology, 43*(4), 273-279.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders: DSM-IV-TR*. Arlington, VA: American Psychiatric Publishing, Inc.

Asnaani, A., Richey, J. A., Dimaite, R., Hinton, D. E., & Hofmann, S. G. (2010). A cross-ethnic comparison of lifetime prevalence rates of anxiety disorders. *The Journal of nervous and mental disease, 198*(8), 551.

Association, A. P. (2008). Report of the Task Force on the Implementation of the Multicultural Guidelines: Retrieved online from http://www. apa. org/about/governance/council/policy/multicultural-report. pdf.

Betancourt, J. R., Green, A. R., Carrillo, J. E., & Ananeh-Firempong, O. (2003). Defining cultural competence: a practical framework for addressing racial/ethnic disparities in health and health care. *Public Health Reports, 118*(4), 293.

Blazer, D. G., Hybels, C. F., Simonsick, E. M., & Hanlon, J. T. (2000). Marked differences in antidepressant use by race in an elderly community sample: 1986–1996. *American Journal of Psychiatry, 157*(7), 1089-1094.

Breslau, J., Aguilar-Gaxiola, S., Kendler, K. S., Su, M., Williams, D. R., & Kessler, R. C. (2006). Specifying race-ethnic differences in risk for psychiatric disorder in a USA national sample. *Psychological Medicine, 36*(1), 57-68.

Breslau, J., Kendler, K. S., Su, M., Gaxiola-Aguilar, S., & Kessler, R. C. (2005). Lifetime risk and persistence of psychiatric disorders across ethnic groups in the United States. *Psychological Medicine, 35*(3), 317-327.

Bruch, M. A., Fallon, M., & Heimberg, R. G. (2003). Social phobia and difficulties in occupational adjustment. *Journal of Counseling Psychology, 50*(1), 109.

Chapman, L. K., & Steger, M. F. (2010). Race and religion: Differential prediction of anxiety symptoms by religious coping in African American and European American young adults. *Depression and Anxiety, 27*(3), 316-322.

Chavira, D. A., & Stein, M. B. (2005). Childhood social anxiety disorder: from understanding to treatment. *Child and Adolescent Psychiatric Clinics of North America, 14*(4), 797-818.

Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans: A biopsychosocial model. *American Psychologist, 54*(10), 805.

Cox, B. J., Fleet, C., & Stein, M. B. (2004). Self-criticism and social phobia in the US national comorbidity survey. *Journal of Affective Disorders, 82*(2), 227-234.

Dohrenwend, B. P. (2000). The role of adversity and stress in psychopathology: some evidence and its implications for theory and research. *Journal of Health and Social Behavior*, 1-19.

Fedoroff, I. C., & Taylor, S. (2001). Psychological and pharmacological treatments of social phobia: a meta-analysis. *Journal of Clinical Psychopharmacology, 21*(3), 311-311.

Gould, R. A., Buckminster, S., Pollack, M. H., & Otto, M. W. (1997). Cognitive-behavioral and pharmacological treatment for social phobia: A meta-analysis. *Clinical Psychology: Science and Practice, 4*(4), 291-306.

Griner, D., & Smith, T. B. (2006). Culturally adapted mental health intervention: A meta-analytic review. *Psychotherapy: Theory, research, practice, training, 43*(4), 531.

Himle, J. A., Baser, R. E., Taylor, R. J., Campbell, R. D., & Jackson, J. S. (2009). Anxiety disorders among African Americans, blacks of Caribbean descent, and non-Hispanic whites in the United States. *Journal of Anxiety Disorders, 23*(5), 578-590.

Hope, D. A., Rapee, R. M., Heimberg, R. G., & Dombeck, M. J. (1990). Representations of the self in social phobia: Vulnerability to social threat. *Cognitive Therapy and Research, 14*(2), 177-189.

Jackson, J. S., Neighbors, H. W., Torres, M., Martin, L. A., Williams, D. R., & Baser, R. (2006). Use of mental health services and subjective satisfaction with treatment among Black Caribbean immigrants: results from the National Survey of American Life. *American journal of public health*.

Jackson, J. S., Torres, M., Caldwell, C. H., Neighbors, H. W., Nesse, R. M., Taylor, R. J., Williams, D. R. (2004). The National Survey of American Life: a study of racial,

ethnic and cultural influences on mental disorders and mental health. *International Journal of Methods in Psychiatric Research, 13*, 196-207.

Katzelnick, D. J., Kobak, K. A., DeLeire, T., Henk, H. J., Greist, J. H., Davidson, J. R. T., Helstad, C. P. (2001). Impact of generalized social anxiety disorder in managed care. *American Journal of Psychiatry, 158*(12), 1999-2007.

Keith, V. M., Lincoln, K. D., Taylor, R. J., & Jackson, J. S. (2010). Discriminatory Experiences and Depressive Symptoms among African American Women: Do Skin Tone and Mastery Matter? *Sex roles, 62*(1), 48-59.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry, 62*(6), 593-593.

Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of Health and Social Behavior*, 208-230.

Kessler, R. C., Stein, M. B., & Berglund, P. (1998). Social phobia subtypes in the National Comorbidity Survey. *The American journal of psychiatry, 155*, 613-619.

Magee, W. J., Eaton, W. W., Wittchen, H. U., McGonagle, K. A., & Kessler, R. C. (1996). Agoraphobia, simple phobia, and social phobia in the National Comorbidity Survey. *Archives of General Psychiatry, 53*(2), 159-159.

Neighbors, H. W., Caldwell, C., Williams, D. R., Nesse, R., Taylor, R. J., Bullard, K. M. K., . . . Jackson, J. S. (2007). Race, ethnicity, and the use of services for mental disorders: results from the National Survey of American Life. *Archives of General Psychiatry, 64*(4), 485-485.

Okazaki, S. (2009). Impact of racism on ethnic minority mental health. *Perspectives on Psychological Science, 4*(1), 103.

Phan, K. L., Fitzgerald, D. A., Nathan, P. J., & Tancer, M. E. (2006). Association between amygdala hyperactivity to harsh faces and severity of social anxiety in generalized social phobia. *Biological Psychiatry, 59*(5), 424-429.

Ruscio, A. M., Brown, T. A., Chiu, W. T., Sareen, J., Stein, M. B., & Kessler, R. C. (2008). Social fears and social phobia in the USA: results from the National Comorbidity Survey Replication. *Psychological Medicine, 38*(01), 15-28.

Schneier, F. R. (2006). Social anxiety disorder. *New England Journal of Medicine, 355*(10), 1029-1036.

Schwartz, C. E., Wright, C. I., Shin, L. M., Kagan, J., & Rauch, S. L. (2003). Inhibited and uninhibited infants" grown up": Adult amygdalar response to novelty. *Science, 300*(5627), 1952-1953.

Sellers, R. M., Caldwell, C. H., Schmeelk-Cone, K. H., & Zimmerman, M. A. (2003). Racial identity, racial discrimination, perceived stress, and psychological distress among African American young adults. *Journal of Health and Social Behavior, 44*(3), 302-317.

Sellers, R. M., Copeland-Linder, N., Martin, P. P., & Lewis, R. L. H. (2006). Racial Identity Matters: The Relationship between Racial Discrimination and Psychological Functioning in African American Adolescents. [10.1111/j.1532-7795.2006.00128.x]. *Journal of Research on Adolescence, 16*(2), 187-216.

Services, U. D. o. H. (2000). *Healthy people 2010*: Government Printing Office.

Smedley, B. D., Stith, A. Y., & Nelson, A. R. (2009). *Unequal treatment: confronting racial and ethnic disparities in health care (with CD)*: National Academies Press.

Smith, W. A., Allen, W. R., & Danley, L. L. (2007). Assume the position... you fit the description. *American Behavioral Scientist, 51*(4), 551.

Snowden, L. R. (2001). Barriers to effective mental health services for African Americans. *Mental health services research, 3*(4), 181-187.

Snowden, L. R., & Pingitore, D. (2002). Frequency and scope of mental health service delivery to African Americans in primary care. *Mental health services research, 4*(3), 123-130.

Soto, J. A., Dawson-Andoh, N. A., & BeLue, R. (2011). The Relationship between Perceived Discrimination and Generalized Anxiety Disorder among African Americans; Afro Caribbeans and non-Hispanic Whites. *Journal of Anxiety Disorders, 25*, 258-265.

Stein, D., Ipser, J., & Van Balkom, A. (2000). Pharmacotherapy for social anxiety disorder. *Cochrane Database Syst Rev, 4*.

Stein, M. (1996). How shy is too shy? *The Lancet, 347*(9009), 1131-1132.

Stein, M. B., Jang, K. L., & Livesley, W. J. (2002). Heritability of social anxiety-related concerns and personality characteristics: a twin study. *The Journal of nervous and mental disease, 190*(4), 219-224.

Stein, M. B., & Kean, Y. M. (2000). Disability and quality of life in social phobia: epidemiologic findings. *American Journal of Psychiatry, 157*(10), 1606.

Stein, M. B., & Stein, D. J. (2008). Social anxiety disorder. *The Lancet, 371*(9618), 1115-1125.

Sue, S. (1998). In search of cultural competence in psychotherapy and counseling. *American Psychologist, 53*(4), 440.

Turner, R. J., & Lloyd, D. A. (2004). Stress burden and the lifetime incidence of psychiatric disorder in young adults: racial and ethnic contrasts. *Archives of General Psychiatry, 61*(5), 481-481.

Wang, P. S., Berglund, P., & Kessler, R. C. (2000). Recent care of common mental disorders in the United States. *Journal of General Internal Medicine, 15*(5), 284-292.

Wang, P. S., Lane, M., Olfson, M., Pincus, H. A., Wells, K. B., & Kessler, R. C. (2005). Twelve-Month Use of Mental Health Services in the United States: Results From the National Comorbidity Survey Replication. [10.1001/archpsyc.62.6.629]. *Arch Gen Psychiatry, 62*(6), 629-640.

Whaley, A. L., & Davis, K. E. (2007). Cultural competence and evidence-based practice in mental health services: A complementary perspective. *American Psychologist, 62*(6), 563.

Wittchen, H. U., Fuetsch, M., Sonntag, H., Müller, N., & Liebowitz, M. (2000). Disability and quality of life in pure and comorbid social phobia. Findings from a controlled study. *European Psychiatry, 15*(1), 46-58.

# CHAPTER 2

# DISCRIMINATION AND SOCIAL ANXIETY DISORDER AMONG AFRICAN AMERICANS, CARIBBEAN BLACKS AND NON-HISPANIC WHITES

## 2.1 Background and Significance

Social Anxiety Disorder (SocAD) is a national health burden in the U.S. Anxiety disorders are the most prevalent psychiatric disorders in the U.S., and SocAD is the most prevalent anxiety disorder, with a lifetime prevalence of 12.1% (Kessler, Berglund, et al., 2005). SocAD is characterized by an intense and unreasonable fear of social or performance situations which cause distress and/or impaired functioning in at least some life domains (American Psychiatric Association, 2000). The consequences of SAD are extensive, impacting social and vocational functioning as well as reducing subjective quality of life (Magee, et al., 1996; Stein & Kean, 2000a; Wittchen, et al., 2000). The prevalence rates for SAD differ by race/ethnicity with 12-month prevalence rates of 4.6%, 4.7% and 7.1% among African Americans, Caribbean blacks and non-Hispanic whites, respectively (Himle, et al., 2009). While African Americans and Caribbean blacks have lower prevalence rates of anxiety disorders, the course of the disorders are typically more severe and associated with more functional impairment (Himle, et al., 2009). Consequently, it is important to understand the differential risk factors that might lead to the development of SAD in these populations.

Previous work has highlighted a strong association between discrimination and mental health symptoms (Hudson et al., 2012; Keith, et al., 2010; Kessler, Mickelson, et al., 1999; Soto, et al., 2011). Discrimination refers to the unfair or prejudicial treatment of different categories of people, especially on the grounds of race, age or sex. Studies indicate

that perceiving discrimination, (e.g., believing that one did not get a job due to their ethnicity) can be just as detrimental to mental health as facing overt discrimination (e.g., being called a racial slur) (Clark, et al., 1999; Kessler, Mickelson, et al., 1999; Landrine & Klonoff, 1996). Specifically, research indicates that higher levels of perceived discrimination are associated with increased symptoms of depression and anxiety (Broman, Mavaddat, & Hsu, 2000; Landrine & Klonoff, 1996). Discrimination literature also discusses major experiences of discrimination which are defined as discrete, major episodes of discrimination (e.g., being unfairly fired or denied a promotion) as well as everyday discrimination which is defined as consistent, less overt forms of intolerance (e.g., being treated with less respect) (Williams, Yu, Jackson, & Anderson, 1997). Both are associated with negative mental health outcomes for African Americans (Williams & Williams-Morris, 2000).

Numerous studies indicate that ethnic minority groups experience significantly higher levels of racial discrimination (Fisher, Wallace, & Fenton, 2000; Landrine & Klonoff, 1996; Swim, Hyers, Cohen, Fitzgerald, & Bylsma, 2003). Given the specific characteristics of SocAD, in which exposure to certain social or performance situations provoke anxiety responses and avoidance, discrimination may help explain the increased severity and persistence of anxiety disorders in minority populations. This study will investigate the relationship between discrimination and SocAD in African Americans, Caribbean blacks and non-Hispanic whites using the National Survey of American life (NSAL), the most comprehensive study of psychopathology among American blacks to-date (Jackson, et al., 2004).

The full impact of discrimination on specific anxiety disorders has not been well established at this point (Okazaki, 2009). The work that has been done, however, indicates that discrimination may be linked to particular anxiety disorders. Research using the National Survey of American Life (NSAL) dataset shows that major experiences of discrimination are related to Generalized Anxiety Disorder (GAD). Findings indicate that experience with general discrimination (i.e., not race-based) is a predictor of GAD for African Americans, Caribbean blacks and non-Hispanic whites, but perceiving the reason for discrimination as race-based is a predictor of GAD only in African Americans (Soto, et al., 2011).

Two theories that may help explain the relationship between discrimination and GAD may also be useful in understanding the link between discrimination and specific anxiety disorders for racial/ethnic minorities. The concept of racial battle fatigue provides one helpful framework for understanding how reactions to discrimination have similarities with certain anxiety symptoms. This work posits that repeated racial microaggressions, or subtle attacks/invalidations due to one's racial/ethnic identification, in the social realm can lead to social-psychological stress responses (Smith, et al., 2007). Soto et al. (2010) argues that certain social-psychological stress responses observed in racial battle fatigue (e.g., constant anxiety and worrying) are similar to GAD symptoms (but not necessarily other disorders such as PTSD), and uses this framework to help explain the link between major experiences of discrimination and GAD.

Many of the stress responses described in Smith et al. (2007)'s work on racial battle fatigue also have considerable overlap with symptoms specific to SocAD such as emotional and social withdrawal, loss of confidence, avoidance, a tendency to keep quiet, increased

anxiety/worrying and elevated heartbeat (Smith, et al., 2007), and thus, may provide a useful theoretical framework for understanding the relationship between discrimination and SocAD. Furthermore, we argue that because racial battle fatigue refers to subtle, consistent racial microaggressions, it is conceptually similar to everyday discrimination and may provide a theoretical rationale for a link between everyday discrimination and SocAD. Given these similarities, we hypothesize that everyday discrimination more than major experiences of discrimination will predict SocAD in African Americans, Caribbean blacks and non-Hispanic whites.

Additionally, Hunter and Schmidt (2010) propose a model stating that sociocultural beliefs, including an awareness of racism, can be related to anxiety symptoms. They postulate that SocAD symptoms may be associated with cultural mistrust experienced by blacks in America who have been subjected to unfair treatment. They posit that cultural mistrust may lead to increased anxiety in social situations, as African Americans may worry about negative interactions with members of different racial and ethnic groups (Hunter & Schmidt, 2010), similar to people with SocAD. Both racial battle fatigue and Hunter and Schmidt's model provide support for the hypothesis that discrimination may have a specific link with SocAD.

It is important to distinguish between race-based and non-race-based (i.e., general) discrimination. Research indicates that race-based discrimination is significantly associated with poorer mental health outcomes in minority groups (Williams & Mohammed, 2008). Our study investigates whether the proportion of individuals who attribute discrimination primarily to racial factors is high in individuals with SocAD. Thus,

we hypothesize a higher percentage of African Americans with SAD will attribute discrimination to racial factors compared to non-Hispanic whites with SocAD.

Racial discrimination may impact Caribbean blacks differently. Investigating Caribbean blacks and African Americans as one group obscures important differences, such as having distinct languages, music and social customs (Kasinitz, 1992; Logan & Deane, 2003; Waters, 2001). Although both Caribbean blacks and African Americans experience racial discrimination in the U.S., there are key differences in how racial discrimination is experienced. Caribbean Blacks come from sending or home countries characterized by unique histories (colonial, post-colonial and independence eras), and social structures in which race plays a significant, but decidedly different and more nuanced role in the social structure (Foner, 2005; Vickerman, 2001a, 2001b). Education, wealth, occupation, and family standing are more prominent than African ancestry in determining social status (Vickerman, 2001b). In the U.S. race is a "master status" (Foner, 2005) in which Caribbean blacks' racial background is both their most salient characteristic and one that embodies a stigmatized social status. Caribbean Blacks have to, in essence, "learn to be black" and develop a new sense of self in relation to prevailing racial and ethnic hierarchies (Vickerman, 2001b).

It may be the case that discrimination is more likely to be attributed to racial factors for African Americans given the long history of this type of discrimination in the U.S. In support of this theory, Soto et al. (2010) found that attributing major experiences of discrimination to racial factors was associated with GAD for African Americans and not Caribbean blacks, suggesting that race-based discrimination may not be as salient for Caribbean blacks. However, Caribbean blacks in the U.S. are subjected to similar levels of

race-based discrimination, and thus, may still be vulnerable to the effects of race-based discrimination. Given the limited research in this arena, we did not feel there was adequate literature to support a firm hypothesis for the association of race-based discrimination to SocAD on Caribbean blacks but we argue that it is important to investigate Caribbean blacks as a separate subgroup given their unique history and culture.

Although previous research highlights the strong link between discrimination and mental health, to date, little work has been done to assess the specific relationship between SocAD and discrimination. The work that has been done indicates that discrimination may be related to specific anxiety disorders. Especially given the particular characteristics of SocAD, it appears to be worth investigating whether there is a relationship between having experiences of discrimination and having Social Anxiety Disorder. The purpose of this study is to investigate the impact of discrimination on African Americans, Caribbean blacks and non-Hispanic whites with SocAD in the U.S. using the NSAL dataset. The current study represents an initial investigation of the influence of discrimination on the development of SocAD in African Americans, Caribbean blacks and non-Hispanic whites. Understanding the role of discrimination is crucial to the development of culturally and racially sensitive interventions and prevention strategies.

## 2.2 Methods

### *Sample*

The present study used data from the National Survey of American Life (NSAL), a large-scale survey consisting of interviews with a total of 6082 adults in the U.S (Jackson, et al., 2004). The NSAL has a national multi-stage area probability design and the field work was completed by the Institute for Social Research's Survey Research Center, in

cooperation with the Program for Research on Black Americans (Heeringa et al., 2004). The sample included 3750 African Americans, 1621 Caribbean blacks and 891 non-Hispanic whites.

The NSAL was designed to be representative of the U.S. black population (Heeringa, et al., 2004). The overall response rate was 72.3%; response rates for African Americans, Caribbean blacks and non-Hispanic whites were 70.7%, 77.7% and 69.7%, respectively. In this study, adults 18 years of age and older were classified as "African American" if they self-identified as black but did not indicate familial/ancestral ties to the Caribbean. ''Caribbean black'' refers to adults who self-identified as black and specified that they or at least one of their parents or grandparents emigrated from a country in the Caribbean.

*Measures*

Social Anxiety Disorder Assessment: The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (American Psychiatric Association, 2000) (DSM-IV) World Mental Health Composite International Diagnostic Interview (WMH-CIDI), was used to assess SocAD. The WMH-CIDI is a structured interview and has demonstrated adequate reliability in epidemiological and cross-cultural studies (Kessler & Üstün, 2004).

Discrimination: The everyday discrimination scale and a modified version of the major experiences of discrimination were used to assess discrimination (Williams, Yu, Jackson, & Anderson, 1997) (See Appendices A and B). These scales have demonstrated good internal consistency and validity and have been linked to mental health outcomes (Williams & Williams-Morris, 2000). The everyday discrimination scale assesses chronic and less overt experiences of discrimination (e.g., being treated with less respect than others), while

the major experiences of discrimination scale assesses major episodes of discrimination (e.g., being unfairly stopped, searched, questioned or abused by the police). Respondents also indicated whether they attributed the discrimination to ancestry/origins, gender, race, age, height/weight, shade of skin color, or an unspecified other category.

Control Variables: Gender, age, poverty index, marital status, employment status, and education are included in the analyses as control variables.

## 2.3 Analysis Strategy

All analyses were adjusted for the complex samples design of the NSAL data and were conducted in STATA 12 (StataCorp, 2011). Chi-square analyses were used to detect race/ethnic differences for race based and non-race based major and everyday discrimination as well as lifetime SocAD prevalence. Logistic regression was performed to determine whether everyday and major experiences of discrimination were associated with the occurrence of SocAD for the overall sample and separate models were run for each individual race/ethnic group to assess the relationship between SocAD and discrimination within each group. Age, gender, education, marital status, employment status and poverty index were included in each of the models because they are known correlates of SocAD.

## 2.4 Results

*Sample Characteristics*

shows the socio-demographic characteristics of the NSAL sample as well as discrimination experiences. Overall, the mean age of the sample was 43.6 and 45.9% of

the sample was female. Approximately ten percent of the sample met criteria for SocAD in their lifetime. Table 2.1 displays SocAD prevalence rates and experiences of discrimination by race/ethnicity. Race/ethnic differences were detected for the prevalence of SocAD where 12.2% of Non-Hispanic whites met criteria for SocAD during their lifetime, followed by 7.6% of African Americans and 6% Caribbean blacks ($\chi^2(1.5) = 14.5$, $p< 0.000$).

Table 2.1 Characteristics of overall NSAL sample, exclusive of Hispanic ethnicity

| | **Sample Frequency** | **Sample % (SE)*** |
|---|---|---|
| Endorsed SAD (lifetime) | 456 | 9.8 (0.63) |
| Everyday discrimination | | |
| Race based | 2623 | 30.1 (1.5) |
| Non-race based | 1556 | 37.8 (1.4) |
| Major Discrimination | | |
| Race based | 2102 | 25.9 (1.4) |

| | | |
|---|---|---|
| Non-race based | 2235 | 44.1 (1.3) |
| Ethnicity | | |
| African American | 3570 | 46.8 (3.1) |
| Caribbean black | 1621 | 3.5 (0.3) |
| Non-Hispanic white | 891 | 49.7 (3.3) |
| Gender | | |
| Female | 2286 | 45.9 (1.1) |
| Male | 3796 | 54.1 (1.1) |
| Marital Status | | |
| Married | 1907 | 10.3(2.3) |
| Partner | 437 | 7.8(0.6) |
| Sep/Div/Wid | 1836 | 25.1(0.9) |
| Never Married | 1892 | 26.8(1.6) |
| | Mean (SE)* | |
| Age | 43.6(0.7) | |
| Poverty Index | 3.2(0.2) | |

*Percentages and means have been weighted to be nationally representative of the US. Standard errors have been adjusted for the complex design of the NSAL sample.

Caribbean blacks (42.2%) and African Americans (42.5%) (**Error! Reference source not found.**) were significantly more likely to endorse racial factors as the primary reason for major discrimination compared to non-Hispanic whites (9.4%) ($\chi^2(1.8) = 147.3$, $p < .000$). African Americans (53.4%) and Caribbean blacks (52.2%) were also significantly more likely to report racial factors as the primary reason for everyday discrimination experiences compared to non-Hispanic whites (6.0%) ($\chi^2(1.35) = 310.85$, $p < 0.000$). Conversely, non-Hispanic whites attributed discrimination to other factors rather than racial factors for both everyday and major experiences of discrimination (**Error! Reference source not found.**).

Table 2.2 Social anxiety disorder prevalence and experiences of discrimination stratified by ethnicity

| | **African Americans % (SE)** | **Caribbean blacks % (SE)** | **Non-Hispanic Whites % (SE)** | **Chi-squared** |
|---|---|---|---|---|
| Endorsed SAD (lifetime) | 7.6 | 6.0 | 12.2 | 14.5*** |
| Major Discrimination | | | | |

| | | | | |
|---|---|---|---|---|
| All | | | | |
| Race based | 42.5 (1.3) | 42.2 (4.6) | 9.4 (1.2) | 147.3*** |
| Non-race based | 38.0 (1.1) | 37.4 (2.1) | 50.3 (2.2) | 22.7*** |
| Everyday Discrimination | | | | |
| All | | | | |
| Race based | 53.4 (1.5) | 52.2 (2.8) | 6.0 (1.0) | 310.85*** |
| Non-race based | 22.0 (1.0) | 24.2 (2.2) | 37.8 (1.4) | 127.8*** |

***p<0.001 Chi-square values are based on the Rao-Scott correction and account for the stratification, clustering, and weighting of the data.

*Correlates of SAD*

Logistic regression analysis revealed that higher levels of everyday discrimination were significantly associated with SocAD, but major discrimination experiences were not significantly associated with SocAD (see Table 2.2). Logistic regression models were then run including the ethnicity x discrimination interaction term (separate models were tested for everyday and major experiences of discrimination) while controlling for the other variables in the model. No significant interactions were found. Separate logistic regression analyses for African Americans, Caribbean blacks and non-Hispanic whites were performed to determine whether these findings were maintained across subgroups (see Table 2.3). Higher levels of everyday discrimination were associated with SocAD occurrence for all three groups but major experiences of discrimination were not related to SocAD. A one unit increase in experiences with everyday discrimination was associated with a 1.05 increase in the odds of endorsing SocAD for African Americans (CI: 1.03-1.07), Caribbean blacks (1.01-1.09) and non-Hispanic whites (CI: 1.02-1.09).

Table 2.2 Race and Discrimination as Predictors of Social Anxiety (Total Sample)

| | **Odds Ratio (CI)** |
|---|---|
| **Race** | |
| African American | Reference |
| Caribbean black | 0.82 (0.50-1.34) |
| White | 2.38 (1.74-3.26)*** |
| **Gender** | |
| Female | Reference |

| | |
|---|---|
| Male | 0.71 (0.54-0.0.92)* |
| **Discrimination** | |
| Major Experiences | 1.00 (0.99-1.01) |
| Everyday | 1.05 (1.03-1.07)** |

CI=confidence interval. All model estimates are weighted to be nationally representative. Confidence intervals are adjusted for stratification, clustering and weighting of the data. Education, age, marital status, employment status and poverty index were controlled for in the model.
*p<0.05
**p<0.01
***p<0.001

Table 2.3 Discrimination as a predictor of Social Anxiety Disorder within race/ethnicity

| | **African Americans** Odds Ratio (CI) | **Caribbean blacks** Odds Ratio (CI) | **Non-Hispanic Whites** Odds Ratio (CI) |
|---|---|---|---|
| Everyday Experiences | 1.05 (1.03-1.07)*** | 1.05 (1.01-1.09)* | 1.05 (1.02-1.09)** |
| **Major Experiences** | **0.99 (0.98-1.00)** | **1.01 (1.00-1.02)** | **1.00 (0.98-1.04)** |

CI=confidence interval. All model estimates are weighted to be nationally representative. Confidence intervals are adjusted for stratification, clustering and weighting of the data. Education, gender, age, marital status, employment status and poverty index were controlled for in the model.
*p<0.05
**p<0.01
***p<0.001

## 2.5 Discussion

The results of this study revealed a relationship between general discrimination and SocAD for African Americans, Caribbean blacks and non-Hispanic whites, demonstrating that higher levels of everyday discrimination are associated with SocAD. Major experiences of discrimination were not significantly associated with SocAD occurrence when demographic variables were controlled for. This study adds to the existing literature by highlighting that negative outcomes are associated with discrimination (Williams & Williams-Morris, 2000), further clarifying the types of discrimination that are associated with SocAD and using a theoretically grounded approach to understand the link between discrimination and SocAD.

Everyday discrimination emerged as the only type of discrimination that was associated with SocAD. The relationship between general everyday discrimination and SocAD was significant among all three racial/ethnic groups. These results show that

perceiving consistent, subtle unfair treatment is significantly related to social anxiety regardless of race. These findings can be understood in the context of both theories about the development of SocAD as well as theories of discrimination.

Researchers postulate that SocAD develops in people who have internal representations of the self that are based on how they believe they are perceived by others (Hope, et al., 1990). This theory suggests that individuals with SocAD believe others view them negatively, and thus, develop anxiety about their abilities in social situations. The everyday discrimination measure assesses perceived, daily slights (e.g., people act as if they are better than you) and asks participants how often others treat them poorly. This measure was designed to assess an individual's perception of daily, unfair treatment by others (Williams, Jackson, & Anderson, 1997). Thus, the finding that more everyday discrimination is associated with higher levels of SocAD occurrence is consistent with models of SocAD that suggest that people who believe that others view them negatively are more likely to meet criteria for SocAD.

The finding that everyday discrimination is significantly associated with SocAD can also be understood in the context of the theory of racial battle fatigue (as hypothesized earlier), which posits that racial microaggressions lead to socio-psychological stress responses (Smith, et al., 2007). The stress responses associated with discrimination that are described by Smith et al. (2007) overlap with symptoms of SocAD (e.g., social withdrawal), helping to contextualize the finding in this study that perceptions of everyday discrimination are associated with SocAD. This theory provides a useful framework for understanding how a belief in unfair treatment may be associated with social anxiety symptoms.

Racial battle fatigue specifically discusses racial microaggressions (as opposed to unfair treatment for other reasons) and hypothesizes that unfair treatment because of one's race may lead to negative outcomes (Smith, et al., 2007). These results show that African Americans and Caribbean blacks were significantly more likely to attribute unfair treatment to racial factors. Thus, since higher levels of everyday discrimination were associated with increased SocAD occurrence and blacks were more likely to attribute discrimination to racial factors, race-based discrimination may be uniquely related to SocAD for African Americans and Caribbean blacks. This finding fits well with Hunter and Schmidt's (2010) sociocultural model of SocAD which suggests that an awareness of racism and cultural mistrust may be associated with more social anxiety symptoms. Future work should focus on further investigating this relationship.

This study assessed perceived discrimination and cannot distinguish whether socially anxious individuals receive more discrimination. Future research could investigate whether people are more likely to discriminate against socially anxious individuals. Research indicates that people may have an initial negative bias against shy individuals (Paulhus & Morgan, 1997). It would be interesting to investigate whether socially anxious perceptions of a negative bias are reflected in other's opinions of them.

The present study has limitations and certain results should be interpreted with caution. First, the cross-sectional nature of this study does not allow discrimination to be causally linked to SocAD occurrence. Future research on the relationship between discrimination and SocAD using longitudinal data is needed to clarify this issue. Although this study demonstrates that blacks (African Americans and Caribbean blacks) were more likely to attribute discrimination to racial factors, this study did not distinguish the unique

relationships of general and race-based discrimination to SocAD. Additional work is needed to evaluate how race-based discrimination relates specifically to SocAD.

This study contributes to the extant research by showing that the perception of everyday, unfair treatment is related to SocAD for different ethnic/racial groups and that African Americans and Caribbean blacks are more likely than non-Hispanic whites to attribute unfair treatment to racial factors. The current finding that perceptions of discrimination are associated with increased SocAD occurrence can be understood in the context of theories about SocAD that posit that this disorder develops in individuals who believe others have negative opinions about them and are uniquely attuned to social-evaluative threat cues (Hope, et al., 1990). This is the first study that we are aware of to investigate the relationship between perceived discrimination and social anxiety.

The present findings on the relationship between SocAD and discrimination provide several potential implications for SAD treatment. Previous work indicates that cognitive behavioral therapy (CBT) is an effective treatment for SocAD (Heimberg, 2002) and that attention to multi-cultural issues in CBT treatment has been shown to improve therapy outcomes (Hays, 2009). Thus, given the current findings that more frequent perceptions of discrimination are associated with greater prevalence of SocAD, clinicians may want to assess perceptions of unfair treatment as it relates to SocAD symptoms to determine whether perceived discrimination may be maintaining avoidance of social situations. Additionally, because perceptions of racial discrimination were more prevalent for African Americans and Caribbean blacks than non-Hispanic whites with SocAD, an awareness of racism may lead to a better understanding of the cultural context of SocAD for African Americans and Caribbean blacks and has implications for treatment of SocAD for these

populations. Research on multi-cultural practice stresses that it is important for therapists to validate minority clients' feelings and experiences of oppression (Hays, 2009); the current findings indicate that this suggestion may be particularly important for therapists delivering CBT treatment for SocAD, where clients are encouraged to gradually practice exposure to social situations. Additionally, future research should investigate whether incorporating cognitive training to cope with unfair treatment or psycho-education about discrimination increases the effectiveness of cognitive behavioral treatment for SocAD. This study is the first to establish a link between SocAD and perceptions of discrimination, adding to the literature by providing a better understanding of anxiety in minority populations and highlighting potential target areas for interventions for this condition.

## 2.6 References

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders: DSM-IV-TR*. Arlington, VA: American Psychiatric Publishing, Inc.

Broman, C. L., Mavaddat, R., & Hsu, S. Y. (2000). The experience and consequences of perceived racial discrimination: A study of African Americans. *Journal of Black Psychology, 26*(2), 165.

Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans: A biopsychosocial model. *American Psychologist, 54*(10), 805.

Fisher, C. B., Wallace, S. A., & Fenton, R. E. (2000). Discrimination distress during adolescence. *Journal of Youth and Adolescence, 29*(6), 679-695.

Foner, N. (2005). *In a new land: A comparative view of immigration*. New York, NY: New York University Press.

Hays, P. A. (2009). Integrating evidence-based practice, cognitive–behavior therapy, and multicultural therapy: Ten steps for culturally competent practice. *Professional Psychology: Research and Practice; Professional Psychology: Research and Practice, 40*(4), 354.

Heeringa, S. G., Wagner, J., Torres, M., Duan, N., Adams, T., & Berglund, P. (2004). Sample designs and sampling methods for the Collaborative Psychiatric Epidemiology Studies (CPES). *International Journal of Methods in Psychiatric Research, 13*(4), 221-240.

Heimberg, R. G. (2002). Cognitive-behavioral therapy for social anxiety disorder: current status and future directions. *Biological Psychiatry, 51*(1), 101-108.

Himle, J. A., Baser, R. E., Taylor, R. J., Campbell, R. D., & Jackson, J. S. (2009). Anxiety disorders among African Americans, blacks of Caribbean descent, and non-Hispanic whites in the United States. *Journal of Anxiety Disorders, 23*(5), 578-590.

Hope, D. A., Rapee, R. M., Heimberg, R. G., & Dombeck, M. J. (1990). Representations of the self in social phobia: Vulnerability to social threat. *Cognitive Therapy and Research, 14*(2), 177-189.

Hudson, D. L., Bullard, K. M., Neighbors, H. W., Geronimus, A. T., Yang, J., & Jackson, J. S. (2012). Are benefits conferred with greater socioeconomic position

undermined by racial discrimination among African American men? *Journal of men's health*.

Hunter, L. R., & Schmidt, N. B. (2010). Anxiety psychopathology in African American adults: literature review and development of an empirically informed sociocultural model. *Psychological Bulletin, 136*(2), 211.

Jackson, J. S., Torres, M., Caldwell, C. H., Neighbors, H. W., Nesse, R. M., Taylor, R. J., . . . Williams, D. R. (2004). The National Survey of American Life: a study of racial, ethnic and cultural influences on mental disorders and mental health. *International Journal of Methods in Psychiatric Research, 13*, 196-207.

Kasinitz, P. (1992). *Caribbean New York: Black immigrants and the politics of race*: Cornell Univ Pr.

Keith, V. M., Lincoln, K. D., Taylor, R. J., & Jackson, J. S. (2010). Discriminatory Experiences and Depressive Symptoms among African American Women: Do Skin Tone and Mastery Matter? *Sex roles, 62*(1), 48-59.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry, 62*(6), 593-593.

Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of Health and Social Behavior*, 208-230.

Kessler, R. C., & Üstün, T. B. (2004). The world mental health (WMH) survey initiative version of the world health organization (WHO) composite international diagnostic interview (CIDI). *International journal of methods in psychiatric research, 13*(2), 93-121.

Landrine, H., & Klonoff, E. A. (1996). The Schedule of Racist Events: A Measure of Racial Discrimination and a Study of Its Negative Physical and Mental Health Consequences. [10.1177/00957984960222002]. *Journal of Black Psychology, 22*(2), 144-168.

Logan, J., & Deane, G. (2003). 'Diversity in Metropolitan America. *Retrieved March, 19*, 2008-2008.

Magee, W. J., Eaton, W. W., Wittchen, H. U., McGonagle, K. A., & Kessler, R. C. (1996). Agoraphobia, simple phobia, and social phobia in the National Comorbidity Survey. *Archives of General Psychiatry, 53*(2), 159-159.

Okazaki, S. (2009). Impact of racism on ethnic minority mental health. *Perspectives on Psychological Science, 4*(1), 103.

Paulhus, D. L., & Morgan, K. L. (1997). Perceptions of intelligence in leaderless groups: The dynamic effects of shyness and acquaintance. *Journal of Personality and Social Psychology; Journal of Personality and Social Psychology, 72*(3), 581.

Smith, W. A., Allen, W. R., & Danley, L. L. (2007). Assume the position... you fit the description. *American Behavioral Scientist, 51*(4), 551.

Soto, J. A., Dawson-Andoh, N. A., & BeLue, R. (2011). The Relationship between Perceived Discrimination and Generalized Anxiety Disorder among African Americans; Afro Caribbeans and non-Hispanic Whites. *Journal of Anxiety Disorders, 25*, 258-265.

StataCorp, L. (2011). Stata/MP 12.0 for Windows (32-bit): StataCorp LP: College Station, TX, USA.

Stein, M. B., & Kean, Y. M. (2000). Disability and quality of life in social phobia: epidemiologic findings. *American Journal of Psychiatry, 157*(10), 1606-1606.

Swim, J. K., Hyers, L. L., Cohen, L. L., Fitzgerald, D. C., & Bylsma, W. H. (2003). African American college students' experiences with everyday racism: Characteristics of and responses to these incidents. *Journal of Black Psychology, 29*(1), 38.

Vickerman, M. (2001a). Jamaicans: Balancing race and ethnicity. In N. Foner (Ed.), *New immigrants in New York* (pp. 201-228). New York: Columbia University Press.

Vickerman, M. (2001b). Tweaking a monolith: The West Indian encounter with "Blackness". In N. Foner (Ed.), *Islands in the city: West Indian migration to New York*. Berkeley: University of California Press.

Waters, M. C. (2001). *Black identities: West Indian immigrant dreams and American realities*: Harvard University Press.

Williams, D. R., & Mohammed, S. A. (2008). Discrimination and racial disparities in health: evidence and needed research. [10.1007/s10865-008-9185-0]. *Journal of Behavioral Medicine, 32*(1), 20-47.

Williams, D. R., & Williams-Morris, R. (2000). Racism and Mental Health: The African American experience. [10.1080/713667453]. *Ethnicity & Health, 5*(3), 243-243.

Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial Differences in Physical and Mental Health: Socio-economic Status, Stress and Discrimination. [10.1177/135910539700200305]. *Journal of Health Psychology, 2*(3), 335-351.

Williams, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socio-economic status, stress and discrimination. *Journal of Health Psychology, 2*(3), 335-351.

Wittchen, H. U., Fuetsch, M., Sonntag, H., Müller, N., & Liebowitz, M. (2000). Disability and quality of life in pure and comorbid social phobia. Findings from a controlled study. *European Psychiatry, 15*(1), 46-58.

# CHAPTER 3

# RACIAL DISCRIMINATION AND IDENTITY MATTER: IDENTIFYING NEW PREDICTORS OF SOCIAL ANXIETY IN A LOW INCOME AFRICAN AMERICAN SAMPLE

## 3.1 Background and Significance.

Social Anxiety Disorder (SocAD) is the most common anxiety disorder, and is associated with substantial impairment, psychiatric co-morbidity and decreased job attainment (Ruscio, et al., 2008; Stein & Kean, 2000a). SocAD is characterized by an intense and unreasonable fear of social situations which cause significant distress and/or impaired functioning in at least some life domains (American Psychiatric Association, 2000). The impact of SocAD has been well established, but racial and cultural factors associated with the development of SocAD are not well understood. It is particularly important to investigate the unique factors associated with the development of mental health disorders and symptomatology among blacks, given the health disparities present in the U.S. (Jackson, et al., 2004). Data from the National Survey of American life, the most comprehensive study of blacks in the U.S., indicates that SocAD is less common in blacks, with 12 month prevalence rates of 4.6%, compared to 7.1% in whites (Himle, et al., 2009). Although SocAD is less common among blacks in the U.S., the course of the illness tends to be more severe, and blacks are less likely to seek treatment (Himle, et al., 2009).

Two factors that have been related to mental health symptoms are discrimination and racial identity. Studies show that experiencing discrimination has been linked to mental health symptoms. However, the literature also suggests that certain components of racial identity may be protective against the effects of discrimination (Sellers, et al., 2003). The

link between racial identity, discrimination and mental health is a complex and evolving area of research; there are multiple conceptualizations of racial identity and varying links to mental health functioning (Whittaker & Neville, 2010). This work will provide a description of one model of racial identity, the Multidimensional Model of Racial Identity (MMRI) (Sellers, Smith, Shelton, Rowley, & Chavous, 1998) and argue that the MMRI provides a useful framework for understanding how racial identity and discrimination may impact SocAD symptomatology. The purpose of this study is to investigate the connection between racial identity, discrimination and SocAD in a low income, black population.

**Racial discrimination and mental health**

The strong association between discrimination and mental health symptoms has been highlighted in numerous studies (Kessler, Mickelson, et al., 1999; Soto, et al., 2011). Racism can be operationally defined as actions, attitudes, beliefs and societal institutions that degrade groups or individuals because of their ethnic group association or physical characteristics (Clark, et al., 1999). Studies indicate that experiencing perceived discrimination (e.g., believing that one did not get a job due to their ethnicity) can be just as detrimental to mental health as facing overt discrimination (e.g., being called a racial slur) (Clark, et al., 1999; Kessler, Mickelson, et al., 1999; Landrine & Klonoff, 1996). It has been common in the literature to assess both major experiences of discrimination as well as day-to-day discrimination, as both are associated with negative outcomes for African Americans. Specifically, research indicates that higher levels of perceived discrimination are associated with increased symptoms of depression and anxiety (Broman, et al., 2000; Landrine & Klonoff, 1996). Numerous studies also indicate that ethnic minority groups such as African Americans experience significantly higher levels of racial

discrimination (Fisher, et al., 2000; Landrine & Klonoff, 1996; Swim, et al., 2003). Thus, racial discrimination may be related to the presence, severity and persistence of mental health disorders in this population.

Although the association between discrimination and general mental health outcomes is strong, less work has been done on anxiety disorders. In a study that was done using a nationally representative study of the U.S. black population, race-based discrimination was associated with Generalized Anxiety Disorder but not Post Traumatic Stress Disorder (Soto, et al., 2011). This work indicates that race-based discrimination may be associated with specific anxiety disorders but not others, showing that more anxiety disorder specific research is needed to clarify this link. In our recent work using the same nationally representative sample of the U.S. black population, general, everyday, discrimination was found to be associated with SocAD (Author et al., in press). Although we were was not specifically able to look at race-based discrimination as a predictor in that study, this research found that African Americans and Caribbean blacks were more likely than non-Hispanic whites to attribute discrimination to racial factors, demonstrating that racial discrimination may be associated with SocAD symptoms.

**The Multidimensional Inventory of Black Identity and mental health**

The MMRI defines racial identity in African Americans as "the significance and qualitative meaning that individuals attribute to their membership within the Black racial group and within their self-concepts" (Sellers, et al., 1998), p. 23). The MMRI was designed to help researchers understand how racial identity influences appraisals of situations and behavior, making it particularly well-suited to mental health outcomes research. Several key assumptions underlying the MMRI are important for behavioral

research. First, the MMRI assumes that people's perception of their identity is the most valid measure of their identity. Secondly, no particular identity profile is considered to be inherently healthy or normative (Sellers, et al., 1998). Instead, Sellers et al. (1998) assert that racial identity must be understood within a context and its adaptiveness depends on the outcomes measured and cultural environment. Thus, certain racial identities may be specifically related to particular outcomes and this may be useful in understanding behavior, but there is no judgment on what constitutes a "healthy" identity.

The theoretical MMRI is operationalized as a self-report scale called Multidimensional Inventory of Black Identity (MIBI); the MIBI scale is comprised of four dimensions. Two dimensions that have been linked to mental health outcomes (Sellers & Shelton, 2003), racial centrality and regard, are of particular interest in this study. Centrality refers to the degree to which people define themselves with regard to race; this dimension is considered to be relatively stable across situations. Regard is defined as the extent to which a person feels positively or negatively about his or her race; this dimension is divided into public and private regard. Public regard assesses the degree to which an individual believes others view African Americans positively, while private regard captures the extent to which an individual feels positively about being African American and the degree to which he or she feels positively or negatively about African Americans in general (Sellers, et al., 1998).

Regard and centrality have been linked to general mental health outcomes as well as depressive symptoms, and the research indicates that it is particularly important to consider the role of discrimination when investigating the link between racial identity and mental health (Sellers, et al., 2006; Sellers & Shelton, 2003). The findings on this topic

have been varied and complex, depending on the sample investigated and outcome variables used, but the research suggests that certain dimensions of identity (as measured by the MIBI) may both be directly related to mental health and buffer African Americans from some of the deleterious effects of racial discrimination on mental health.

For example, a link between racial identity, discrimination and mental health has been found in African American adolescents and college students. For both groups, high levels of centrality were directly related to lower levels of psychological distress and higher levels of perceived discrimination (Sellers, et al., 2003; Sellers, et al., 2006). For adolescents only, racial centrality also buffered against the stress of experiencing discrimination (Sellers, et al., 2006). Additionally, a direct relationship was found where higher levels of private regard were associated with fewer mental health symptoms, indicating that positive feelings about one's race is related to well-being and demonstrates resilience (Sellers, et al., 2006).

Furthermore, low levels of public regard have been shown to both predict higher levels of racial discrimination and buffer against the effects of discrimination on psychological functioning for African American adolescents and college students (Sellers, et al., 2003; Sellers, et al., 2006; Sellers & Shelton, 2003). Sellers et al. (2006) explains that low levels of public regard may be associated with discrimination for a variety of reasons, such as higher levels of discriminatory experiences or heightened sensitivity toward racial cues. However, these results indicate that while low public regard is associated with increased perceived discrimination, this component of racial identity may protect against the negative mental health consequences that have been linked to perceived discrimination. Sellers et al. (2006) postulates that African American adolescents who

believe that other groups have more negative attitudes toward African Americans may have more effective resources for coping with discrimination since they may have had to use them more frequently. However, the reason why this component of identity buffers against mental health distress is still unclear, and more work needs to be done to clarify this link.

Most of the work to date has focused on the relationship of identity to general psychological measures of distress or symptoms of well-being. The work that has been done on mental health symptoms indicates that there is a link between racial identity and depressive symptoms, general symptoms of anxiety, and trichotillomania symptoms (Neal-Barnett & Stadulis, 2006; Sellers, et al., 2006; Sellers & Shelton, 2003). However, there has been little research on specific disorders and even less work on diagnosed anxiety disorders. Research on diagnosed disorders are particularly important because many empirically supported treatments are designed for specific mental health disorders (Westen & Morrison, 2001). Additionally, given the complex findings in this area, racial identity may impact specific mental health symptoms in unique ways for different populations, making it especially important to investigate the link between particular disorders and discrimination.

**The MMRI, Discrimination and SocAD**

Although racial identity's relationship to social anxiety has not yet been studied, theories about the development of social anxiety posit that it develops in people who have internal representations of the self that are largely negative and based on how they believe they are perceived by others (Hope, et al., 1990). In particular, research suggests that

people with social anxiety view others as threatening and thus avoid social situations (Hope, et al., 1990). It is reasonable, therefore, to hypothesize that individuals with low levels of public regard (in terms of racial identity) may perceive others as hostile and would thus suffer from increased social anxiety symptoms. Additionally, consistent with previous research on racial identity and mental health and theories about SocAD, it is hypothesized that higher levels of private regard will be directly associated with lower rates of SocAD.

Furthermore, work indicates that high race centrality may buffer against the effect of discrimination on mental health symptoms, suggesting that identifying with one's race may be beneficial for psychological functioning (Sellers & Shelton, 2003). Given the finding that individuals with SocAD have fewer social networks and less satisfying social relationships (Schneier, Heckelman, Garfinkel, & Campeas, 1994), we hypothesize that individuals with SocAD will have lower levels of centrality as measured by the MIBI.

Additionally, most of the work to-date has investigated the utility of the MIBI in college students and young adults. This study will examine African American racial identity in a low income, job-seeking sample. Research indicates that SocAD and many other anxiety and mood disorders are more prevalent in low income populations (Himle, et al., 2009; Kessler, Chiu, Demler, & Walters, 2005). Furthermore, anxiety disorders tend to be less prevalent but more severe among African Americans (Himle, et al., 2009). These issues make it especially important to understand the factors associated with SocAD in an African American, low income, adult population.

This is the first study to investigate the association between racial identity, discrimination, and SocAD. If a link between perceived discrimination, identity, and social anxiety is found, interventions aimed at decreasing SocAD symptoms may then be able to

incorporate cognitive interventions that buffer against experiences of discrimination by targeting racial identity. Research indicates that mental health services are underutilized by African Americans and that including cultural adaptations to existing empirically validated mental health treatments can increase the effectiveness of these interventions (Kohn, Oden, Muñoz, Robinson, & Leavitt, 2002; Neighbors, et al., 2007). Understanding the link between racial identity, discrimination and SocAD may inform future treatment.

## 3.2 Methods

*Study site*

Jewish Vocational Service in Detroit, Michigan (JVS). JVS offers a range of vocational training and rehabilitation services to its consumers with a goal of preparing them for success in the workplace and community (e.g., job interviewing skills).The services provided are representative of those commonly offered in vocational service centers (Commission on Accreditation of Rehabilitation, 2007) and include a mix of classroom and individual sessions led by vocational rehabilitation professionals. JVS serves a largely African American population, and most clients live in homeless shelters or substance treatment facilities.

*Recruitment*

Clients at Jewish Vocational Services were asked by their case coordinator if they wished to be meet with a research assistant from the University of Michigan to discuss participation in a research study. If they agreed, a research representative entered the case coordinator's private office and read a recruitment script describing the study. Ninety eight African American participants were recruited for the study. These individuals were evaluated for the presence of SocAD symptoms, racial identity/discrimination experiences

and demographics. A formal diagnosis of SocAD was determined using the SocAD module of the Structured Clinical Interview for DSM-IVAxis I Disorders- Patient Edition, a well-validated structured diagnostic interview (SCID-I/P; First et al., 1995).

*Procedure*

Independent evaluators were trained in use of the SCID-I/P and each participant-rated questionnaire and were available to answer questions regarding their completion. Below are the assessments that were used to evaluate the participants.

*Measures*

Measures of subjects' social anxiety symptoms: SocAD symptoms were assessed using the Liebowitz Social Anxiety Scale (LSAS) (Liebowitz, 1987). See Appendix C. It assesses fear and avoidance of several social interaction and performance situations. The LSAS total score has excellent internal consistency and has demonstrated sensitivity to change following pharmacological and cognitive-behavioral therapy (Heimberg et al., 1999; Liebowitz et al., 1999). This measure correlates well with fear of negative evaluation and clinician-rated improvement measures (Hayes, Miller, Hope, Heimberg, & Juster, 2008).

Diagnostic interviews: The Structured Clinical Interview for DSM-IV Axis 1 Disorders – Patient Edition's (First, Spitzer, Gibbons, & Williams, 1995). The SocAD module was used to determine whether participants met criteria for SocAD. The SCID is a widely used structured interview with excellent test-retest and inter-rater reliability (Skre, Onstad, Torgersen, & Kringlen, 1991; Williams & Gibbon, 1992).

Racial Identity: Racial identity was assessed using regard and centrality subscales of the Multidimensional Inventory of Black Identity (MIBI) (Sellers, et al., 1998). See Appendix D. The centrality subscale assesses the extent to which a person's race is important in their

life, and the regard subscales measure how a person feels about their race and how they believe others perceive their race. Research has shown that racial identity and experiences of discrimination are related to mental health, suggesting that the components of racial identity used in this study will interact with discrimination to have an impact on mental health symptoms (Sellers, et al., 2006). The MIBI has demonstrated adequate validity and reliability (Sellers, et al., 1998). Given the low education levels of this population, statements that were reverse coded in the original MIBI were changed to positively worded statements to allow for ease of understanding.

Discrimination: The Everyday Discrimination Scale assesses everyday experiences of perceived discrimination, and the Major Experiences of Discrimination scale assesses specific events of discrimination (Williams, Jackson, et al., 1997). See Appendices A and B. These scales have demonstrated good internal consistency and validity. Measures of discrimination have been linked to mental health outcomes (Williams & Williams-Morris, 2000). For this study, a modified version was used where participants were only asked to assess how much discrimination they had experienced due to their race. Previous work has also used this scale to investigate racial discrimination and found these scales have construct and convergent validity (Taylor, Kamarck, & Shiffman, 2004).

*Analysis Strategy*

A multiple regression analysis was conducted with the following predictor variables: everyday discrimination, centrality, private regard, public regard, age and gender, social anxiety symptoms as the outcome variable (as measured by the Leibowitz Social Anxiety Scale). To reduce multicollinearity and to ease interpretation, everyday discrimination, centrality, public regard and private regard were mean centered in the multiple regression

analysis (West & Aiken, 1991). Interactions between centrality and discrimination, public regard and discrimination and private regard and discrimination were tested.

## 3.3 Results

*Sample characteristics*

The sample comprised of 98 individuals who self-identified as African American. 51% of the sample met SCID-IV criteria for Social Anxiety Disorder, and 49% did not. The sample was 61% male and 39% female; the gender make-up of the sample is representative of the vocational services population. 84% of the sample had a total household income of less than $10,000 in the past year. The mean age of the sample was 43 (SD = 11.9). Means and standard deviations for identity subscales, discrimination and social anxiety symptoms are presented in Table 3.1.

Table 3.1 Means and Standard Deviations for Study Variables

| **Measure** | **M** | **SD** |
|---|---|---|
| Leibowitz Social Anxiety Scale | 59.2 | 40.7 |
| Centrality | 4.4 | 1.6 |
| Private Regard | 6.0 | 1.1 |
| Public Regard | 3.9 | 1.5 |
| Everyday Discrimination | 26.4 | 11.8 |
| Major Discrimination | 5.2 | 6.7 |

*Bivariate Correlations*

Pearson's product-moment correlations were calculated to examine the bivariate relationships among the variables (Table 3.2). The racial identity variables were related such that participants with higher levels of centrality had higher levels of private regard ($r = .279$, $p < .001$) and higher public regard ($r = .267$, $p < .001$). Individuals who viewed

their race more positively (higher levels of private regard) had higher levels of public regard (r = .334, p < .001). Of the three racial identity variables, only private regard was associated with social anxiety symptoms; viewing one's own race positively was associated with lower levels of social anxiety (r = -.301, p < .001). Perceiving more discrimination was associated with lower levels of public regard (r = -.391, p < .001) and higher levels of everyday discrimination were associated with more social anxiety symptoms (r = .366, p < .001).

Table 3.2 Pearson Product Correlations of Racial Identity, Racial Discrimination and Social Anxiety Symptoms

| | **Centrality** | **Private Regard** | **Public Regard** | **Discrimination** | **Social Anxiety** |
|---|---|---|---|---|---|
| Centrality | *1* | .279* | .267* | .010 | -.124 |
| Private Regard | *.279** | 1 | .334* | -.100 | -.301* |
| Public Regard | *.267** | .334* | 1 | -.391* | -.197 |
| Discrimination | *.010* | -.200 | -.391* | 1 | .366* |
| Social Anxiety Sxs | *-.124* | -.301* | -.197 | .366* | 1 |

* Correlation is significant at the 0.01 level (2-tailed)

*Regression Model*

Initially, interactions between centrality and discrimination, public regard and discrimination and private regard and discrimination were tested, but all interactions were non-significant. Thus, the final model does not include interaction terms. The model produced an R square of .19, which was statistically significant [F(7 , 98) = 4.50, p < .000 ]. Gender, everyday discrimination and private regard can account for 19 % of the variance in social anxiety symptoms as measured by the Leibowitz Social Anxiety Scale. Everyday discrimination was positively related to social anxiety symptoms (B = 1.29, t = 3.79, p <.000 ). Private regard was negatively related to social anxiety symptoms (B = -7.63, t = 2.09, p = .040). Being male was negatively related to social anxiety symptoms (B = -23.58,

t = -2.92, p =.004). Public regard, centrality and age were not significantly related to social anxiety symptoms in this sample. The results of the regression analysis are shown in Table 3.3.

Table 3.3. Multiple regression analysis of social anxiety symptoms

| **Predictor** | **R2 Increments (Coefficient B)** | **t** | ***p*** | **R2** |
|---|---|---|---|---|
| Constant | 63.77 | 4.50 | .000 | .186 |
| Gender (male) | -23.58 | -2.92 | .004 | .087 |
| Everyday Discrimination | 1.29 | 3.79 | .000 | .139 |
| Centrality | .83 | .32 | .748 | .001 |
| Private Regard | -7.63 | 2.09 | .040 | .047 |
| Public Regard | -.50 | -.17 | .865 | .000 |
| Age | .21 | .68 | .497 | .005 |

Although no interactions between discrimination and the racial identity subscales were significant, there was an interaction at the trend level between discrimination and private regard. This marginal interaction showed that for individuals with higher levels of private regard, the negative association between discrimination and social anxiety symptoms may be lower (B = -.521, t = -1.88, p = .064).

## 3.4 Discussion

This is the first study to demonstrate that racial discrimination predicts SocAD symptoms and the first to establish a link between racial identity and SocAD. This work lends further support to the literature outlining the detrimental impacts of racial discrimination. Additionally, the results of this study showed that high levels of private regard are associated with fewer SocAD symptoms. Given the high impact of SocAD on social and vocational functioning, identifying correlates of SocAD is particularly important in lower socioeconomic status populations in order to more effectively design SocAD interventions.

The detrimental impacts of discrimination on general mental health has been well-documented, and previous work has established a link between discrimination and SocAD for African Americans, Caribbean blacks and non-Hispanic whites (see Author et al., in press), showing that experiencing subtle, unfair treatment was predictive of social anxiety regardless of race. However, this work did not fully distinguish race-based discrimination from discrimination based on other factors (e.g., age) and just looked at unfair treatment as a whole. As research shows that race-based discrimination is more prevalent and impactful for U.S. blacks compared to whites, it is especially important to investigate the correlates of race-based discrimination in this population.

In further understanding the association between race-based discrimination and SocAD symptoms, the theory of racial battle fatigue provides one helpful framework for understanding reactions to race-based discrimination. Thus, racial battle fatigue can help explain the link between SocAD symptoms and race-based discrimination found in this study. This work postulates that repeated racial microaggressions, or subtle attacks/invalidations due to one's racial/ethnic identification, can lead to social-psychological stress responses (Smith, et al., 2007). These stress responses include emotional and social withdrawal, loss of confidence, avoidance, a tendency to keep quiet, increased anxiety/worrying and elevated heartbeat. These reactions to discrimination have considerable conceptual overlap with SocAD symptoms, and thus, may provide a useful theoretical framework for understanding how race-based discrimination relates to SocAD symptoms. The current study makes a contribution to the existing literature by further highlighting the detrimental outcomes associated with discrimination and showing that racial discrimination is associated with specific anxiety disorders.

Additionally, this is the first study to link racial identity to SocAD symptoms, showing that having more positive feelings about one's race (or high private regard) is associated with fewer SocAD symptoms. The relationship between high levels of private regard and lower SocAD symptoms was maintained regardless of the level of discrimination perceived. This finding is consistent with previous research that shows a link between more positive attitudes towards one's racial group and positive psychological functioning such as self-esteem (Rowley, Sellers, Chavous, & Smith, 1998; Sellers, et al., 2006). These results are also consistent with theories about SocAD which posit that individuals with this condition have negative representations of the self and lower levels of self-esteem (Hope, et al., 1990; Leary, 1990).

Furthermore, Sellers (2006) argues that higher levels of private regard may serve as a resilience factor in the context of racial discrimination, hypothesizing that holding positive feelings about one's race may help prevent the internalization of inferiority beliefs. Previous work suggests that experiencing discrimination may lead to internalization of inferiority beliefs, which in turn negatively influences psychological functioning (Jones, 2000). The current work provides support for this framework, by suggesting that individuals who feel more positively about their race are less likely to be socially anxious. Thus, this work provides further insight into private regard as a potential compensatory factor for this population and identifies racial identity as a possible target for therapeutic interventions for social anxiety.

However, this study was unable to distinguish whether individuals with lower levels of private regard and higher social anxiety solely viewed their own racial group more negatively or also viewed other racial groups more negatively. In general, SocAD

researchers have found that socially anxious individuals have high levels of self-criticism but low levels of external criticism (Gilbert & Miles, 2000) as well as higher levels of self-focused attention (Bögels & Mansell, 2004; Woody & Rodriguez, 2000), suggesting that social anxiety is at least partially driven by negative internal conceptions of the self. On the other hand, research on narcissism suggests that some individuals who score high on a narcissism scale may be particularly sensitive to social comparisons and act superior and condescending while actually feeling anxious and threatened (Bogart, Benotsch, & Pavlovic, 2004). These results indicate that individuals who are anxious in social settings may also feel negatively towards others. Further research is needed to determine how socially anxious people view other racial groups to help clarify this distinction.

Additionally, there was an interaction at the trend level between discrimination and private regard. Although this interaction was not statistically significant ($p = .064$), it showed that for individuals with higher levels of private regard, the negative association between discrimination and social anxiety symptoms was lower. Theoretical (Anderson, 1991; Cross, Parham, & Helms, 1998) and quantitative (Sellers, et al., 2006) work on the relationship between racial identity and well-being is consistent with this finding, suggesting that racial identity can have an indirect, buffering effect against negative consequences of discriminatory experiences, though private regard has not yet been shown to have this buffering effect. It is possible that this interaction may not have been able to be fully detected due to power constraints, as previous studies investigating the relationship between racial identity and mental health outcomes that showed interactions between identity dimensions and discrimination on mental health (Sellers, et al., 2003) have had

larger sample sizes. Future work may wish to investigate this interaction further with a larger sample size.

Interestingly, there was not a significant multivariate relationship between racial centrality and social anxiety. Previous studies found a direct relationship between racial centrality and psychological well-being/depressive symptoms in adults (Sellers & Shelton, 2003) but not in adolescents (Sellers, et al., 2006). One unique feature of this study that may help explain the current findings is the low-income nature of the sample, and that it is the first study to look at racial identity and discrimination in a predominately homeless, jobless population. African Americans are a large portion of the population in Detroit (approximately 82%) and are more likely to associate with same race peers (DeNavas-Walt, Proctor, & Smith, 2010; Farley, Steeh, Krysan, Jackson, & Reeves, 1994; Zenk et al., 2005). Thus, it may be the case that while it was important to view one's race positively (i.e., private regard), racial centrality is less salient in this population as most day to day interactions occur in a more racially homogenous context. Future research is needed to determine whether this is a plausible explanation. Alternatively, it may be the case that the discrimination due to social class is more central for this population. Previous research shows that lower income individuals are greatly stigmatized, especially when homeless (Blokland, 2008; Snow & Anderson, 1993). Thus, while this study indicates that racial identity is likely an important factor for understanding social anxiety in this population, it also suggests that it is important to consider the unique characteristics of this sample, and future research should identify whether other identity dimensions can also help explain the increased prevalence and severity of SocAD in lower income groups.

Furthermore, the previously reported finding that low levels of public regard buffer the relationship between discrimination and mental health (Sellers, et al., 2006) was not found in this population. Again, it may be the case that public perception of race is less central in this sample due to the high percentage of race-congruent interactions (Farley, et al., 1994; Zenk, et al., 2005). Or, as suggested above, perhaps the public stigma associated with being homeless and jobless may override racial stigma. A comparison study of identity development and discrimination between African Americans of different social classes could help clarify these findings.

This study has certain limitations that merit discussion. First, this study did not use a nationally representative sample of the U.S. black population, which may limit the generalizability of the findings. However, this impoverished and unemployed study sample is particularly valuable in improving the understanding and treatment for SocAD given the strong link between SocAD and impairment in educational attainment, income and employment. Despite these links, SocAD has not been well-researched in low-income, minority populations, making investigations like this even more important. A second limitation relates to the use of a social anxiety symptom measure rather than structured clinical interview diagnoses because of power constraints. Although this measure of social anxiety (the Leibowitz Social Anxiety Scale) has been widely used in the literature as a measure of social anxiety symptom severity, future studies of racial discrimination and identity that include structured diagnostic interviews for social anxiety are needed. Third, the cross-sectional nature did not allow for causality determinations. Thus, for example, we could not answer the questions, "Do socially anxious individuals perceive or experience

more discrimination which causes SocAD or are they discriminated against more because they are socially anxious?" Future longitudinal studies are needed to help address this issue.

One of the most important contributions of this study is that it may help inform future therapeutic interventions as it investigated a specific disorder, social anxiety. It is especially important to investigate symptom clusters because empirically supported treatments are often designed for specific disorders. For instance, Cognitive Behavioral Therapy (CBT) has strong research support as an effective treatment for SocAD (Heimberg, 2002). Research also stresses that attention to multicultural issues in CBT treatment can improve therapy outcomes (Hays, 2009). Thus, this is an important area to investigate, one that if left unaddressed in standard CBT treatments, may be associated with poorer treatment outcomes.

It is our hope that this study represents a first step toward identifying potential targets for intervention and that it is possible to integrate the current findings into key components of CBT for SocAD, using both what we know about effective cognitive behavioral therapy and multicultural practice. Specifically, research on multi-cultural practice stresses that it is important for therapists to validate minority clients' feelings and experiences of oppression and identify culturally related strengths and supports (Hays, 2009). Incorporating these aspects of multi-cultural practice throughout the 3 main components of CBT (psychoeducation, exposure therapy, cognitive restructuring) could result in a more effective treatment for minority clients with SocAD.

The first component of CBT, psychoeducation, is typically done in the beginning phase of treatment and educates individuals on the etiology and impact of SocAD. For instance, a main component of psychoeducation explains how both real and perceived

negative experiences can lead to avoidance of social situations or the development of negative thoughts about oneself. Incorporating a discussion on the impact discriminatory experiences can have on SocAD may help to engage clients in treatment by validating these real and negative encounters. In addition, poor treatment adherence is more common among minority clients (Neighbors, et al., 2007) and acknowledging discriminatory experiences could increase the perceived relevance of the treatment, therefore improving treatment adherence and outcomes.

Exposure therapy, the second component of CBT, is an important aspect of the treatment due to demonstrated efficacy in treating SocAD (Fedoroff & Taylor, 2001; Gould, et al., 1997). It involves repeated and prolonged exposure to progressively more challenging encounters with phobic stimuli (Heimberg and Becker, 2002) and is designed to reduce avoidance of behaviors that lead to impairing consequences. Exposure situations are selected based on the relevance to the individual in treatment. Based on the results from this study, it may be useful to incorporate specific exposure contexts that are particularly relevant to discriminatory experiences (e.g., applying for a job). It would, however, be important to first validate the experience of discrimination and then potentially use graduated exposures as a way to show clients they can successfully handle these situations. More work is needed to determine to what extent individuals with SocAD avoid social situations due to discrimination-related concerns in order to more fully determine the potential usefulness of incorporating these findings into exposure treatment.

The third component of CBT for SocAD, cognitive restructuring, has also been shown to be effective in reducing SocAD symptoms (Fedoroff & Taylor, 2001; Gould et al., 1997; Taylor, 1996). Cognitive restructuring addresses negative thinking patterns that

interfere with social experiences by teaching clients to replace negative thoughts about themselves and others with more rational responses. Cognitive restructuring in CBT for SocAD assumes that participants exaggerate the ramifications of their social interactions and are reacting negatively to them without evidence to support it. For those experiencing real discriminatory interactions with others, approaching cognitive restructuring in this way could be invalidating, potentially resulting in poorer treatment outcomes. An adapted version of CBT could strike a balance between validating the experiences while also addressing the negative thoughts that may arise from the experiences and lead to counterproductive avoidance behaviors. Additionally, as this study found that lower levels of private regard is associated with SocAD, it would be interesting to investigate whether restructuring of negative thoughts about oneself and one's racial identity would result in a reduction of SocAD symptoms in addition to potentially increasing private regard. Overall, based on the results of this study, an adapted version of CBT that integrates aspects of multi-cultural practice could result in a more validating, empowering, and effective treatment experience for minority clients with SocAD.

Identifying cultural factors associated with social anxiety is important in light of the fact that SocAD, while not as prevalent in African Americans, tends to be more severe and persistent in this population (Himle, et al., 2009). Based on the previous literature investigating the relationship between identity and mental health, it is clear that a relationship between identity and general mental health outcomes exists. However, this link had not been previously studied in a clinical population. SocAD is a natural fit for identity research, as one of the core symptoms is fear of negative evaluation. The current study is the first to show that race-based discrimination predicts SocAD symptoms, and it

is also the first to relate a positive component of racial identity, high private regard, to fewer SocAD symptoms. The relationship between racial identity, discrimination, and social anxiety described in this study represents an important first step toward more effectively designing treatments for this impairing condition in low income, largely minority populations and towards merging identity and social anxiety intervention research.

## 3.5 References


American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders: DSM-IV-TR*. Arlington, VA: American Psychiatric Publishing, Inc.

Anderson, L. P. (1991). Acculturative stress: A theory of relevance to Black Americans. *Clinical Psychology Review, 11*(6), 685-702.

Blokland, T. (2008). "You Got to Remember you Live in Public Housing": Place-Making in an American Housing Project. *Housing, Theory and Society, 25*(1), 31-46.

Bogart, L. M., Benotsch, E. G., & Pavlovic, J. D. P. (2004). Feeling superior but threatened: The relation of narcissism to social comparison. *Basic and Applied Social Psychology, 26*(1), 35-44.

Bögels, S. M., & Mansell, W. (2004). Attention processes in the maintenance and treatment of social phobia: hypervigilance, avoidance and self-focused attention. *Clinical Psychology Review, 24*(7), 827-856.

Broman, C. L., Mavaddat, R., & Hsu, S. Y. (2000). The experience and consequences of perceived racial discrimination: A study of African Americans. *Journal of Black Psychology, 26*(2), 165.

Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans: A biopsychosocial model. *American Psychologist, 54*(10), 805.

Cross, W. E., Parham, T. A., & Helms, J. E. (1998). Nigrescence revisited: Theory and research. *African American identity development: Theory, research, and intervention*, 3-71.

DeNavas-Walt, C., Proctor, B. D., & Smith, J. C. (2010). US Census Bureau, Current Population Reports, P60-238. *Income, poverty, and health insurance coverage in the United States: 2009*.

Farley, R., Steeh, C., Krysan, M., Jackson, T., & Reeves, K. (1994). Stereotypes and segregation: Neighborhoods in the Detroit area. *American Journal of Sociology*, 750-780.

Fedoroff, I. C., & Taylor, S. (2001). Psychological and pharmacological treatments of social phobia: a meta-analysis. *Journal of Clinical Psychopharmacology, 21*(3), 311-311.

First, M. B., Spitzer, R., Gibbons, M. B., & Williams, J. B. W. (1995). Structured Clinical Interview for DSM-IV Axis I Disorders. Patient Edition (SCIP-IP. Version 2.0). New York, NY: Biometrics Research Department, New York State Psychiatric Institute.

Fisher, C. B., Wallace, S. A., & Fenton, R. E. (2000). Discrimination distress during adolescence. *Journal of Youth and Adolescence, 29*(6), 679-695.

Gilbert, P., & Miles, J. N. (2000). Sensitivity to Social Put-Down: it's relationship to perceptions of social rank, shame, social anxiety, depression, anger and self-other blame. *Personality and Individual Differences, 29*(4), 757-774.

Gould, R. A., Buckminster, S., Pollack, M. H., & Otto, M. W. (1997). Cognitive-behavioral and pharmacological treatment for social phobia: A meta-analysis. *Clinical Psychology: Science and Practice, 4*(4), 291-306.

Hayes, S. A., Miller, N. A., Hope, D. A., Heimberg, R. G., & Juster, H. R. (2008). Assessing client progress session by session in the treatment of social anxiety disorder: the social anxiety session change index. *Cognitive and Behavioral Practice, 15*(2), 203-211.

Hays, P. A. (2009). Integrating evidence-based practice, cognitive–behavior therapy, and multicultural therapy: Ten steps for culturally competent practice. *Professional Psychology: Research and Practice; Professional Psychology: Research and Practice, 40*(4), 354.

Heimberg, R. G. (2002). Cognitive-behavioral therapy for social anxiety disorder: current status and future directions. *Biological Psychiatry, 51*(1), 101-108.

Heimberg, R. G., Horner, K., Juster, H., Safren, S., Brown, E., & Schneier, F. (1999). Psychometric properties of the Liebowitz social anxiety scale. *Psychological Medicine, 29*(1), 199-212.

Himle, J. A., Baser, R. E., Taylor, R. J., Campbell, R. D., & Jackson, J. S. (2009). Anxiety disorders among African Americans, blacks of Caribbean descent, and non-Hispanic whites in the United States. *Journal of Anxiety Disorders, 23*(5), 578-590.

Hope, D. A., Rapee, R. M., Heimberg, R. G., & Dombeck, M. J. (1990). Representations of the self in social phobia: Vulnerability to social threat. *Cognitive Therapy and Research, 14*(2), 177-189.

Jackson, J. S., Torres, M., Caldwell, C. H., Neighbors, H. W., Nesse, R. M., Taylor, R. J., . . . Williams, D. R. (2004). The National Survey of American Life: a study of racial, ethnic and cultural influences on mental disorders and mental health. *International Journal of Methods in Psychiatric Research, 13*, 196-207.

Jones, C. P. (2000). Levels of racism: a theoretic framework and a gardener's tale. *American Journal of Public Health, 90*(8), 1212.

Kessler, R. C., Chiu, W. T., Demler, O., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*(6), 617.

Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of Health and Social Behavior*, 208-230.

Kohn, L. P., Oden, T., Muñoz, R. F., Robinson, A., & Leavitt, D. (2002). Adapted cognitive behavioral group therapy for depressed low-income African American women. [10.1023/A:1020884202677]. *Community Mental Health Journal, 38*(6), 497-504.

Landrine, H., & Klonoff, E. A. (1996). The Schedule of Racist Events: A Measure of Racial Discrimination and a Study of Its Negative Physical and Mental Health Consequences. [10.1177/00957984960222002]. *Journal of Black Psychology, 22*(2), 144-168.

Leary, M. R. (1990). Responses to social exclusion: Social anxiety, jealousy, loneliness, depression, and low self-esteem. *Journal of Social and Clinical Psychology, 9*(2), 221-229.

Liebowitz, M. R. (1987). Social phobia. *Modern problems of pharmacopsychiatry*.

Liebowitz, M. R., Heimberg, R. G., Schneier, F. R., Hope, D. A., Davies, S., Holt, C. S., Bruch, M. A. (1999). Cognitive-behavioral group therapy versus phenelzine in social phobia: Long term outcome. *Depression and Anxiety, 10*(3), 89-98.

Neal-Barnett, A., & Stadulis, R. (2006). Affective states and racial identity among African-American women with trichotillomania. *Journal of the National Medical Association, 98*(5), 753.

Neighbors, H. W., Caldwell, C., Williams, D. R., Nesse, R., Taylor, R. J., Bullard, K. M. K., Jackson, J. S. (2007). Race, ethnicity, and the use of services for mental

disorders: results from the National Survey of American Life. *Archives of General Psychiatry, 64*(4), 485-485.

Rowley, S. J., Sellers, R. M., Chavous, T. M., & Smith, M. A. (1998). The relationship between racial identity and self-esteem in African American college and high school students. *Journal of Personality and Social Psychology, 74*, 715-724.

Ruscio, A. M., Brown, T. A., Chiu, W. T., Sareen, J., Stein, M. B., & Kessler, R. C. (2008). Social fears and social phobia in the USA: results from the National Comorbidity Survey Replication. *Psychological Medicine, 38*(01), 15-28.

Schneier, F. R., Heckelman, L. R., Garfinkel, R., & Campeas, R. (1994). Functional impairment in social phobia. *Journal of Clinical Psychiatry, 55*(8), 322-331.

Sellers, R. M., Caldwell, C. H., Schmeelk-Cone, K. H., & Zimmerman, M. A. (2003). Racial identity, racial discrimination, perceived stress, and psychological distress among African American young adults. *Journal of Health and Social Behavior, 44*(3), 302-317.

Sellers, R. M., Copeland-Linder, N., Martin, P. P., & Lewis, R. L. H. (2006). Racial Identity Matters: The Relationship between Racial Discrimination and Psychological Functioning in African American Adolescents. *Journal of Research on Adolescence, 16*(2), 187-216.

Sellers, R. M., & Shelton, J. N. (2003). The role of racial identity in perceived racial discrimination. *Journal of Personality and Social Psychology, 84*(5), 1079.

Sellers, R. M., Smith, M. A., Shelton, J. N., Rowley, S. A. J., & Chavous, T. M. (1998). Multidimensional model of racial identity: A reconceptualization of African American racial identity. *Personality and Social Psychology Review, 2*(1), 18-39.

Skre, I., Onstad, S., Torgersen, S., & Kringlen, E. (1991). High interrater reliability for the Structured Clinical Interview for DSM III R Axis I (SCID I). *Acta Psychiatrica Scandinavica, 84*(2), 167-173.

Smith, W. A., Allen, W. R., & Danley, L. L. (2007). Assume the position... you fit the description. *American Behavioral Scientist, 51*(4), 551.

Snow, D. A., & Anderson, L. (1993). *Down on their luck: A study of homeless street people*: University of California Pr.

Soto, J. A., Dawson-Andoh, N. A., & BeLue, R. (2011). The Relationship between Perceived Discrimination and Generalized Anxiety Disorder among African Americans; Afro Caribbeans and non-Hispanic Whites. *Journal of Anxiety Disorders, 25*, 258-265.

Stein, M. B., & Kean, Y. M. (2000). Disability and quality of life in social phobia: epidemiologic findings. *American Journal of Psychiatry, 157*(10), 1606-1606.

Swim, J. K., Hyers, L. L., Cohen, L. L., Fitzgerald, D. C., & Bylsma, W. H. (2003). African American college students' experiences with everyday racism: Characteristics of and responses to these incidents. *Journal of Black Psychology, 29*(1), 38.

Taylor, T. R., Kamarck, T. W., & Shiffman, S. (2004). Validation of the Detroit Area Study Discrimination Scale in a community sample of older African American adults: the Pittsburgh healthy heart project. *International journal of behavioral medicine, 11*(2), 88-94.

West, S. G., & Aiken, L. S. (1991). *Multiple regression: Testing and interpreting interactions*: Sage Publications, Incorporated.

Westen, D., & Morrison, K. (2001). A multidimensional meta-analysis of treatments for depression, panic, and generalized anxiety disorder: An empirical examination of the status of empirically supported therapies. *Journal of Consulting and Clinical Psychology, 69*(6), 875.

Whittaker, V. A., & Neville, H. A. (2010). Examining the relation between racial identity attitude clusters and psychological health outcomes in African American college students. *Journal of Black Psychology, 36*(4), 383-409. doi: 10.1177/0095798409353757

Williams, D. R., & Williams-Morris, R. (2000). Racism and Mental Health: The African American experience. [10.1080/713667453]. *Ethnicity & Health, 5*(3), 243-243.

Williams, J., & Gibbon, M. (1992). The structured clinical interview for DSM-III-R (SCID): II. Multisite test-retest reliability. *Archives of General Psychiatry, 49*(8), 630-636.

Williams, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socio-economic status, stress and discrimination. *Journal of Health Psychology, 2*(3), 335-351.

Woody, S. R., & Rodriguez, B. F. (2000). Self-focused attention and social anxiety in social phobics and normal controls. *Cognitive Therapy and Research, 24*(4), 473-488.

Zenk, S. N., Schulz, A. J., Israel, B. A., James, S. A., Bao, S., & Wilson, M. L. (2005). Neighborhood racial composition, neighborhood poverty, and the spatial accessibility of supermarkets in metropolitan Detroit. *Journal Information, 95*(4).

# CHAPTER 4

# EFFECTIVENESS OF THE MINI-SOCIAL PHOBIA INVENTORY (MINI-SPIN) AS A SCREENER FOR SOCIAL ANXIETY DISORDER IN A LOW-INCOME, JOB-SEEKING SAMPLE

## 4.1 Background and Significance

Social Anxiety Disorder (SocAD) is characterized by an intense and unreasonable fear of social situations which cause significant distress and/or impaired functioning in at least some life domains (American Psychiatric Association, 2000). SocAD is a common disorder, with lifetime prevalence rates of 12.1% in the United States (Kessler, Berglund, et al., 2005). SocAD impairs social functioning, reduces subjective quality of life and tends to have an early onset (Magee, et al., 1996; Stein & Kean, 2000a). Individuals with SocAD are less likely to be married, tend to have higher levels of co-morbid mood and substance use disorders and are more likely to live below the poverty level (Himle, et al., 2009; Kessler, Stang, Wittchen, Stein, & Walters, 1999). Multiple domains of functioning are impaired by SocAD; the disorder is associated with decreased satisfaction in relationships as well as impairments in achievement and fulfilling everyday activities (Eng, Coles, Heimberg, & Safren, 2005; Kessler, et al., 1998). SocAD is associated with impaired productivity and educational attainment and also increased unemployment and reduced income (Heimberg, Hope, & Dodge, 1990; Magee, et al., 1996; Stein & Kean, 2000a; Wittchen, et al., 2000). Additionally, there is evidence to suggest that individuals suffering from this condition often do not recognize they have an anxiety disorder (Culpepper, 2006). Instead, the presence of SocAD may not be detected until they seek treatment for the variety of co-morbid disorders often associated with SocAD (Acarturk, et al., 2008). Furthermore,

even physicians may have trouble diagnosing SocAD. SocAD is both underdiagnosed and undertreated by clinicians (Davidson, Hughes, George, & Blazer, 1993; Westenberg, 1998).

Given the difficulties in recognizing SocAD and the impact on quality of life (e.g., job attainment, limited social relationships, etc.) associated with SocAD, a brief, accurate screening tool is of great value. The Mini-Social Phobia Inventory (Mini-SPIN) (Connor, Kobak, Churchill, Katzelnick, & Davidson, 2001) is a self-report screener for generalized social anxiety disorder (GSocAD) derived from the Social Phobia Inventory (SPIN) (Connor et al., 2000). The Mini-SPIN consists of the three items from the SPIN that have been shown to most accurately distinguish individuals with GSocAD from those without the disorder. The items are scored from 0-4 on a Likert scale, with 12 being the maximum score. Research indicates that 6 or above is indicative of an SAD diagnosis. The three Mini-SPIN items are: *Fear of embarrassment causes me to avoid doing things or speaking to people; I avoid activities in which I am the center of attention*; and *Being embarrassed or looking stupid are among my worst fears*.

The Mini-SPIN was originally validated in a managed care population, where ninety six percent of the population was white, with an average education of 14 years and an average income of $25,000 (Connor, et al., 2001). At the cutoff score of 6, the Mini-SPIN demonstrated a specificity of 90.0% and a sensitivity of 88.7% for GSocAD, showing it was a highly effective SocAD screener. The Mini-SPIN has also shown adequate validity and reliability in samples of Brazilian college students and adults seeking specialized anxiety treatment in the U.S. (de Lima Osório, Crippa, & Loureiro, 2007; de Lima Osório, Crippa, & Loureiro, 2010; Weeks, Spokas, & Heimberg, 2007). However, a study

investigating the usefulness of the Mini-SPIN in Australian college students indicated that the Mini-SPIN likely over-estimated the prevalence rates of SocAD in this population, estimating rates of SocAD at 30% of the student population (Wilson, 2005). Although formal diagnoses were not obtained in this study, these results point a need to evaluate the effectiveness of the Mini-SPIN in a variety of different populations in order to more accurately target those who may benefit from social anxiety treatment.

The cultural appropriateness of the Mini-SPIN as a screener has not been evaluated in a largely minority or low income population. Given the variable utility of the Mini-SPIN, it is particularly important to evaluate the Mini-SPIN in diverse samples. This study will investigate the utility of the Mini-SPIN in a largely African American, unemployed population. Research suggests that while African Americans have lower prevalence rates of SocAD, the disorder tends to be more severe and persistent in this group (Himle, et al., 2009). These findings indicate that African Americans with SocAD may be particularly vulnerable to adverse impacts on quality of life associated with this disorder. However, there is substantial evidence that African-American and low-income people with psychiatric disorders rarely utilize professional mental health services (Neighbors, et al., 2007), likely due to both limited access and high stigma. While there is extensive evidence that SocAD can be successfully treated with cognitive-behavioral therapy (Fedoroff & Taylor, 2001), African Americans and those below the poverty level in particular are not receiving adequate treatment for this condition. Thus, if found to be effective, the Mini-SPIN would be key to targeting vulnerable populations that may benefit from social anxiety treatment.

Furthermore, to-date, research has only investigated the psychometric properties of the Mini-SPIN for a subtype of social anxiety, generalized social anxiety disorder. In GSocAD, fears are related to most social situations (American Psychiatric Association, 2000). Weeks et al. (2007) argues future research should investigate whether the Mini-SPIN is sensitive enough to detect non-generalized SocAD, where fears are only related to specific situations (e.g., public speaking). This study will investigate whether the Mini-SPIN can serve as an overall screener for SocAD, by examining the Mini-SPIN's ability screen for either generalized or non-generalized social anxiety disorder together. It is hypothesized that a lower cut-off point may be needed to screen for either non-generalized or generalized SocAD.

This is the first study to evaluate the Mini-SPIN in a largely African American, economically disadvantaged, jobless population. Given the association between severe SocAD symptoms and minority populations as well as SocAD's link to decreased income, accurate evaluation of SocAD in this population is necessary. If the Mini-SPIN is effective in this population, it can serve as a quick, economical tool to identify individuals that may benefit from SocAD treatment.

## 4.2 Methods

*Study site*

Jewish Vocational Service in Detroit, Michigan (JVS). The Career Initiative Center at JVS offers a range of vocational training and rehabilitation services to its consumers with a goal of preparing them for success in the workplace and community (e.g., resume construction, interviewing, effective job search skills). These types of services are commonly offered in vocational service centers (Commission on Accreditation of

Rehabilitation, 2007) and include a mix of classroom and individual sessions led by a range of vocational rehabilitation professionals. The Career Initiative Center at JVS serves a largely African American population and most clients live in homeless shelters or substance treatment facilities.

*Recruitment*

Clients at JVS were asked by their JVS clinical staff during initial assessment if they wished to meet with a research assistant from the University of Michigan to discuss participation in a research study. If they agreed, a research representative entered the JVS staff member's private office and read a recruitment script describing the study. These individuals were evaluated for the presence of SocAD as well as other mental health symptoms A formal diagnosis of SocAD was determined using the SocAD module of the Structured Clinical Interview for DSM-IV Axis I Disorders- Patient Edition, a well-validated structured diagnostic interview (SCID-I/P) (First, et al., 1995).

*Procedure*

Independent evaluators were trained in use of the SCID-I/P and each participant-rated questionnaire. Raters were available to answer questions regarding their completion. Below are the assessments that were used to evaluate the participants.

*Measures*

Social anxiety disorder screening: JVS consumers completed the Mini-Social Phobia Inventory (Mini-SPIN) (Connor, et al., 2001) as part of their routine intake assessments at JVS (Appendix E). See above description.

Diagnostic interviews: The Structured Clinical Interview for DSM-IV Axis 1 Disorders – Patient Edition (First, et al., 1995): The SocAD module was used to determine whether

participants met criteria for SocAD. The SCID is a widely used structured interview which has excellent test-retest and inter-rater reliability (Skre, et al., 1991; Williams & Gibbon, 1992). All interviewers in this study received structured interview training according to the protocol delineated by Brown et al. 2001 (Brown, Di Nardo, Lehman, & Campbell, 2001).

Measures of subjects' social anxiety symptoms: SocAD symptoms were assessed using the Liebowitz Social Anxiety Scale (LSAS) (Liebowitz, 1987). See Appendix C. It assesses fear and avoidance of several social interaction and performance situations. The LSAS total score has excellent internal consistency and has demonstrated sensitivity to change following pharmacological and cognitive-behavioral therapy (Heimberg, et al., 1999; Liebowitz, et al., 1999). This measure correlates well with fear of negative evaluation and clinician-rated improvement measures (Hayes, et al., 2008). The Brief Fear of Negative Evaluation Scale (BFNE) was also used to assess social anxiety symptoms (Weeks et al., 2005). The BFNE also has demonstrated good internal consistency and clinical validity (Appendix F).

Measures of other symptoms: Anxiety was assessed using the Beck Anxiety Inventory (BAI) (Beck & Steer, 1991). The BAI is a widely used scale designed to quantify the severity of anxiety symptoms, with well-established reliability and validity (Beck & Steer, 1991). See Appendix G. Depressive symptoms were assessed using the Patient Health Questionnaire- 9, a widely used self-report measure with adequate reliability and validity (Kroenke, Spitzer, & Williams, 2001). See Appendix H.

*Analysis Strategy*

An ROC (receiver operating characteristics) curve analysis was used for validation of the Mini-SPIN with the SCID diagnoses of GSocAD and generalized and non-generalized SocAD together. The ROC curve is a graph of sensitivity against 1-specificity, and the performance of a diagnostic variable can be quantified by calculating the area under the ROC curve (AUC), where higher AUCs indicate better diagnostic performance of the measure. The ROC curve analysis was also used to identify optimal cut-off points for the screener. Cut-off points were chosen based on the score that maximized the difference between the sensitivity and the false positive rate (or 1 minus the specificity). The sensitivity of a diagnostic test refers to the proportion of people for whom the outcome is positive who are correctly identified by the test, while the specificity is the proportion of people for whom the outcome is negative who are correctly identified by the test. Additionally, cut-off points were chosen to maximize diagnostic efficiency (e.g., overall hit rate), Positive Predictive Value (PPV) (i.e., the probability that a person has a positive outcome given they have a positive test result) and Negative Predictive Value (NPV) (i.e., the probability that a person has a negative outcome given they have a negative test result). Furthermore, bivariate correlations were assessed to determine the relationships between the Mini-SPIN and the other measures of SocAD (the LSAS and the BFNE) as well as other measures of psychological symptoms (the PHQ-9 and the BAI). These analyses were performed using SPSS (version 20).

## 4.3 Results

*Sample characteristics*

The sample comprised 201 individuals, the majority of whom were men (64%) with a mean age of 42 years (SD = 12.8). Eighty-four percent (84%) of the sample identified as African American, 11% as white and 5% as multiracial. The majority of the sample had never been married (64%) and had earned less than $10,000 in the past year (86%). The average Mini-SPIN score was 5.6 (SD = 3.5). 53% met SCID criteria for GSocAD and 66% met criteria for either non-generalized or generalized SocAD. Table 4.1 shows the means and standard deviations for responses to study measures.

*Internal Consistency*

Based on the 199 respondents who provided data for all 3 items used to compute the Mini-SPIN, the Mini-SPIN items exhibited strong internal consistency, (Cronbach's alpha = .83).

Table 4.1 Means on study measures

| **Measure** | **M** | **SD** | **n** |
|---|---|---|---|
| Mini-SPIN | 5.6 | 12.00 | 199 |
| LSAS | 67.8 | 38.1 | 193 |
| BFNE | 37.2 | 16.6 | 162 |
| PHQ-9 | 10.0 | 7.1 | 191 |
| BAI | 19.5 | 15.2 | 169 |

*Sensitivity and Specificity of the Mini-SPIN*

Two ROC curve analyses were performed to determine the optimal Mini-SPIN cut-points for diagnoses of both GSocAD and SocAD. For GSocAD, the area under the curve (AUC) for the ROC analysis was 0.82 (CI: .76-.88) and was significant compared to a chance ROC line with AUC = 0.50 ($p<0.001$) (**Error! Reference source not found.**). Table 4.2 shows the sensitivity, specificity, PPV and NPV for various cut-off points for GSocAD. A cut-off score of 5 demonstrated a sensitivity of 0.867, a specificity of 0.628, a PPV of 0.722, a NPV of 0.810 and a diagnostic efficiency of 75.4%. A cut-off score of 6

demonstrated decreased sensitivity and diagnostic efficiency but showed a somewhat increased specificity (See Table 4.2).

Figure 4.1 Mini-SPIN receiver operating characteristic curve (ROC) for GSAD

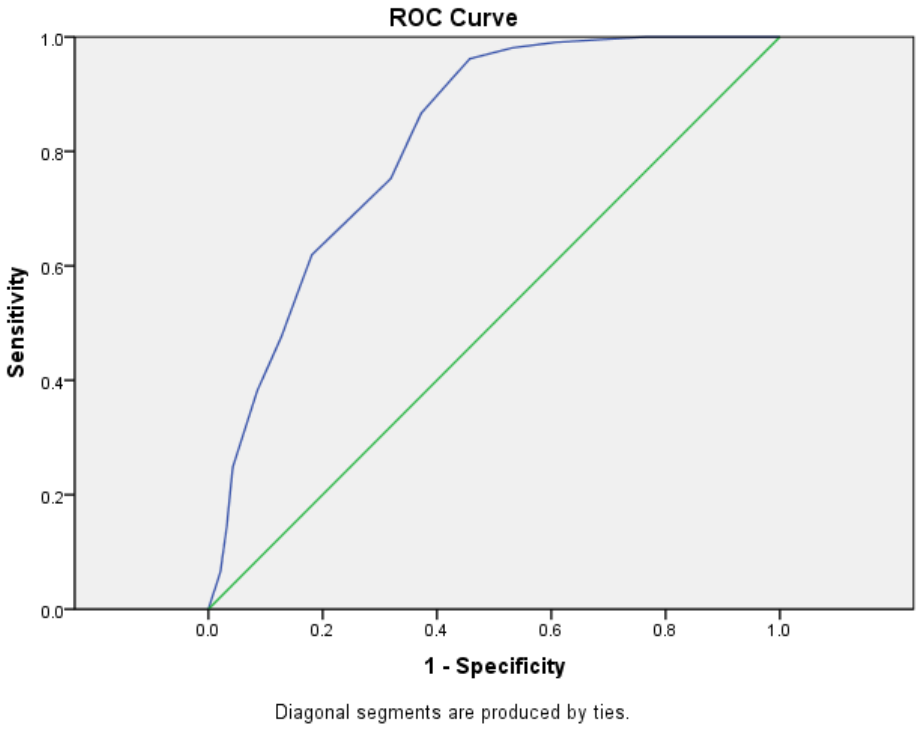


Table 4.2 Sensitivity (Sn), Specificity (Sp), Positive Predictive Value (PPV), Negative Predictive Value (NPV) and Diagnostic Efficiciency (DE) for several cut-off scores of the Mini-SPIN items for GSocAD

| Cut-off score | Sensitivity | Specificity | PPV | NPV | Diagnostic Efficiency (%) |
|---|---|---|---|---|---|
| 4 | .962 | .543 | .701 | .923 | 76.3 |
| 5 | .867 | .628 | .722 | .810 | 75.4 |
| 6 | .752 | .681 | .724 | .711 | 71.8 |
| 7 | .476 | .872 | .793 | .658 | 71.3 |
| 8 | .381 | .915 | .833 | .599 | 66.3 |

For either non-generalized or generalized SocAD, the area under the curve (AUC) for the ROC analysis was 0.84 (CI: .78-.91) and was significant compared to a chance ROC line with AUC = 0.50 ($p<0.001$) (**Error! Reference source not found.**). Table 3 presents the sensitivity, specificity, PPV, NPV and diagnostic efficiency for various cut-off points for SAD. A cut-off score of 4 demonstrated a sensitivity of 0.924, a specificity of 0.662, a

PPV of 0.833, a NPV of 0.818 and a diagnostic efficiency of 83.4%. A cut-off score of 5 showed decreased sensitivity and diagnostic efficiency but showed a somewhat increased specificity (See Table 4.3).

Figure 4.2 Mini-SPIN receiver operating characteristic curve (ROC) for generalized and non-generalized SAD

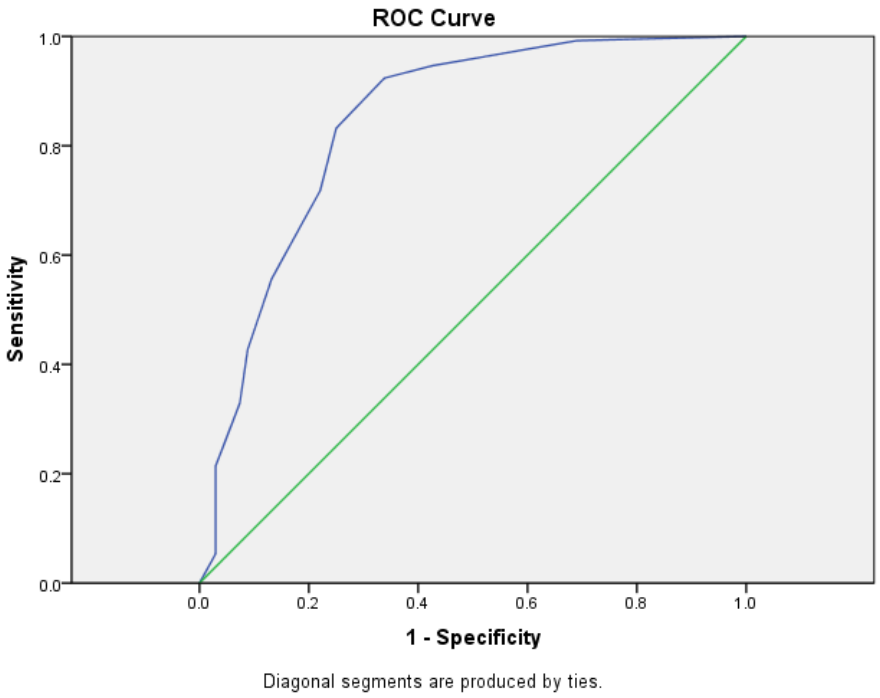


Table 4.3 Sensitivity (Sn), Specificity (Sp), Positive Predictive Value (PPV), Negative Predictive Value (NPV) and Diagnostic Efficiciency (DE) for several cut-off scores of the Mini-SPIN items for either non-generalized or generalized SAD

| Cut-off score | Sensitivity | Specificity | PPV | NPV | Diagnostic Efficiency (%) |
|---|---|---|---|---|---|
| 3 | .947 | .574 | .810 | .848 | 82.0 |
| 4 | .924 | .662 | .833 | .818 | 83.4 |
| 5 | .832 | .750 | .841 | .699 | 80.4 |
| 6 | .718 | .779 | .862 | .589 | 73.9 |
| 7 | .557 | .868 | .890 | .504 | 66.3 |

*Relationship to other indicators of mental health*

Table 4.4 shows that the Mini-SPIN total score was significantly correlated with the measures of social anxiety assessed in this study, the Liebowitz Social Anxiety Scale (LSAS) and the Brief Fear of Negative Evaluation Scale (BFNE). Additionally, the Mini-SPIN was correlated with alternative measures of anxiety (the Beck Anxiety Inventory) and depression (the Patient Health Questionnaire-9), but to a lesser degree.

Table 4.4. Zero-order correlations of the Mini-SPIN with other study measures

| **Measure** | **Mini-SPIN r** |
|---|---|
| LSAS | .595** |
| BFNE | .575** |
| PHQ-9 | .460** |
| BAI | .321** |

** Correlation is significant at the 0.01 level

## 4.4 Discussion

The Mini-SPIN demonstrated adequate psychometric properties in terms of its discriminative validity in this population. However, in this study, the cut-off point that maximized sensitivity, specificity and diagnostic efficiency was 5, a finding that differs somewhat from previous work. In the original study (Connor, et al., 2001), a cut-off score of 6 showed high levels of sensitivity and specificity (0.89 and 0.90, respectively). Furthermore, a follow-up study demonstrated that 7 was the most useful cut-off point for Brazilian college students (de Lima Osório, et al., 2007). In the current sample, using 6 or 7 as a cut-off point would have sacrificed sensitivity, NPV and diagnostic efficiency.

Using 5 as a cut-off, the Mini-SPIN had high levels of sensitivity, similar to the original study (Connor, et al., 2001) and higher than in the Brazilian sample (de Lima Osório, et al., 2007). Although specificity was found to be adequate, the specificity of the Mini-SPIN in this sample was not as high as in the original study and was closer to the

specificity found in the Brazilian sample. Thus, while the specificity of the Mini-SPIN could be improved in this population, these results indicate that the screener has strong utility in this sample and can serve as a quick, economical way to identify individuals who may benefit from social anxiety treatment.

This is the first study to investigate the effectiveness of the Mini-SPIN in a low income, urban, jobless and largely minority population, and different demographics of the sample may account for the different cut-off point observed in this study. Previous research shows that SocAD is associated with characteristics that are particularly prevalent in this population such as higher rates of unemployment (Heimberg, et al., 1990), reduced income (Magee, et al., 1996) and lower educational attainment (Stein & Kean, 2000b). Thus, research indicates that social anxiety is a particularly relevant problem in this population, and a slightly lower cut-off score (5) on the screener seems to reveal this connection.

Furthermore, this is the first study that we are aware of to investigate the Mini-SPIN as a screener for either non-generalized or generalized SocAD, and these results suggest that a lower cut-off point can be used to screen for either non-generalized or generalized SAD. In this sample, a cut-off point of 4 on the Mini-SPIN demonstrated high sensitivity (0.924) and relatively high specificity (0.662). This study provides preliminary evidence for the usefulness of the Mini-SPIN as a screener for either non-generalized or generalized SocAD, indicating that a lower cut-off point may identify people who have specific social anxiety fears. Identifying individuals with non-generalized social anxiety would increase clinicians' abilities to effectively target people who may benefit from SocAD treatment.

Additionally, these results provide evidence for convergent validity of the Mini-SPIN. The Mini-SPIN was highly correlated with self-report measures of social anxiety, the LSAS ($r = 0.595$) and the BFNE ($r = 0.575$). These measures were also highly correlated with the Mini-SPIN in a treatment-seeking sample (Weeks, et al., 2007). Taken together, these studies provide important evidence to suggest good convergent validity of the Mini-SPIN in a variety of populations.

In this population, the Mini-SPIN was also correlated with other measures of mental health (brief self-report measures of anxiety and depression), but to a lesser degree. In a previous study (Weeks, et al., 2005), the Mini-SPIN was not correlated with other measures of mental health, indicating that the Mini-SPIN may have slightly lower discriminant validity in the current study. However, associations between SocAD and other anxiety disorders and SocAD and depression have been well documented (Schneier, Johnson, Hornig, Liebowitz, & Weissman, 1992) and moderate correlations between the BAI and Mini-SPIN were found in a sample of Brazilian college students (de Lima Osório, et al., 2010). In light of these findings, the moderate correlations between the Mini-SPIN and the PHQ-9 and BAI are less surprising and may relate to high levels of diagnostic co-morbidity. Given these findings, additional work may need to be done to more fully investigate the relationship of the Mini-SPIN to other self-report measures of anxiety, depression and quality of life.

Several considerations should be highlighted when interpreting the results of this study. First, the sample was an economically disadvantaged, jobless and largely African American population and is not representative of the U.S. black population. This is a particularly unique and important population to improve assessment and treatment of

SocAD for given the strong link between SocAD and impairment in educational attainment, income and employment outcomes. However, similar to other studies investigating the psychometric properties of the Mini-SPIN using college student and treatment-seeking populations, the generalizability of these results are somewhat limited due to the specificity of the sample. On the other hand, taken together with the current findings, multiple studies in a variety of populations show that the Mini-SPIN has validity, lending further support to the research indicating the Mini-SPIN may have general utility. Only a nationally representative study would truly be able to determine the generalizability of the Mini-SPIN, and even a nationally representative survey may reveal different cut-off points for different sub-populations. Additionally, although this study included self-report measures of depression and anxiety, co-morbid disorders were not systematically assessed and may influence the impact of SocAD. Future research should focus on investigating the relationship of co-morbid diagnoses.

This research contributes to the existing research in several ways. First, this is the first study to investigate the Mini-SPIN as an assessment tool for either non-generalized or generalized SocAD, demonstrating that using a lower cut-off score may be a good way to capture individuals with specific social anxiety fears. Furthermore, this study provides evidence for the Mini-SPIN as an effective screener in an economically disadvantaged sample, indicating that this screener works well in diverse samples. Given the significant impairment associated with SocAD combined with low detection and treatment rates (Katzelnick, et al., 2001), it is particularly important to establish usefulness of the Mini-SPIN as a screener in a variety of populations. Research points to several unique barriers associated with SocAD that may prevent people from receiving SocAD treatment. In

particular, individuals express uncertainty about where to go for help and fear about being judged negatively by service providers (Olfson et al., 2000). Thus, given its brevity combined with ease of scoring and interpretation, the Mini-SPIN may be able to identify individuals in a variety of settings (e.g., primary care offices) that may benefit from treatment. Results of this study support the Mini-SPIN as a measure for detecting SocAD in non-traditional settings as well as in more diverse populations, given its strong psychometric profile in this sample.

## 4.5 References


Acarturk, C., de Graaf, R., Van Straten, A., Have, M., & Cuijpers, P. (2008). Social phobia and number of social fears, and their association with comorbidity, health-related quality of life and help seeking. *Social Psychiatry and Psychiatric Epidemiology, 43*(4), 273-279.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders: DSM-IV-TR*. Arlington, VA: American Psychiatric Publishing, Inc.

Beck, A. T., & Steer, R. A. (1991). Relationship between the Beck Anxiety Inventory and the Hamilton Anxiety Rating Scale with anxious outpatients. *Journal of Anxiety Disorders, 5*(3), 213-223.

Brown, T. A., Di Nardo, P. A., Lehman, C. L., & Campbell, L. A. (2001). Reliability of DSM-IV anxiety and mood disorders: implications for the classification of emotional disorders. *Journal of Abnormal Psychology; Journal of Abnormal Psychology, 110*(1), 49.

Connor, K. M., Davidson, J. R. T., Churchill, L. E., Sherwood, A., Foa, E., & Weisler, R. H. (2000). Psychometric properties of the Social Phobia Inventory (SPIN): New self-rating scale.. *British Journal of Psychiatry, 176*, 379-386.

Connor, K. M., Kobak, K. A., Churchill, L. E., Katzelnick, D., & Davidson, J. R. T. (2001). Mini-SPIN: A brief screening assessment for generalized social anxiety disorder. *Depression and Anxiety, 14*(2), 137-140.

Culpepper, L. (2006). Social anxiety disorder in the primary care setting. *The Journal of clinical psychiatry, 67*(12), 31-37.

Davidson, J. R., Hughes, D. L., George, L. K., & Blazer, D. G. (1993). The epidemiology of social phobia: Findings from the Duke Epidemiological Catchment Area Study. *Psychological Medicine: A Journal of Research in Psychiatry and the Allied Sciences, 23*(3), 709-718. doi: 10.1017/s0033291700025484

de Lima Osório, F., Crippa, J. A., & Loureiro, S. R. (2007). A study of the discriminative validity of a screening tool (MINI-SPIN) for social anxiety disorder applied to Brazilian university students. *European Psychiatry, 22*(4), 239-243.

de Lima Osório, F. L., Crippa, J. A. S., & Loureiro, S. R. (2010). Further Study of the Psychometric Qualities of a Brief Screening Tool for Social Phobia (MINI SPIN) Applied to Clinical and Nonclinical Samples. *Perspectives in Psychiatric Care, 46*(4), 266-278.

Eng, W., Coles, M. E., Heimberg, R. G., & Safren, S. A. (2005). Domains of life satisfaction in social anxiety disorder: Relation to symptoms and response to cognitive-behavioral therapy. *Journal of Anxiety Disorders, 19*(2), 143-156.

Fedoroff, I. C., & Taylor, S. (2001). Psychological and pharmacological treatments of social phobia: a meta-analysis. *Journal of Clinical Psychopharmacology, 21*(3), 311-311.

First, M. B., Spitzer, R., Gibbons, M. B., & Williams, J. B. W. (1995). Structured Clinical Interview for DSM-IV Axis I Disorders. Patient Edition (SCIP-IP. Version 2.0). New York, NY: Biometrics Research Department, New York State Psychiatric Institute.

Hayes, S. A., Miller, N. A., Hope, D. A., Heimberg, R. G., & Juster, H. R. (2008). Assessing client progress session by session in the treatment of social anxiety disorder: the social anxiety session change index. *Cognitive and Behavioral Practice, 15*(2), 203-211.

Heimberg, R. G., Hope, D. A., & Dodge, C. S. (1990). DSM-III-R subtypes of social phobia: Comparison of generalized social phobics and public speaking phobics. *Journal of Nervous and Mental Disease, 173*, 172-179.

Heimberg, R. G., Horner, K., Juster, H., Safren, S., Brown, E., & Schneier, F. (1999). Psychometric properties of the Liebowitz social anxiety scale. *Psychological Medicine, 29*(1), 199-212.

Himle, J. A., Baser, R. E., Taylor, R. J., Campbell, R. D., & Jackson, J. S. (2009). Anxiety disorders among African Americans, blacks of Caribbean descent, and non-Hispanic whites in the United States. *Journal of Anxiety Disorders, 23*(5), 578-590.

Katzelnick, D. J., Kobak, K. A., DeLeire, T., Henk, H. J., Greist, J. H., Davidson, J. R. T., . . . Helstad, C. P. (2001). Impact of generalized social anxiety disorder in managed care. *American Journal of Psychiatry, 158*(12), 1999-2007.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry, 62*(6), 593-593.

Kessler, R. C., Stang, P., Wittchen, H., Stein, M. B., & Walters, E. (1999). Lifetime co-morbidities between social phobia and mood disorders in the US National Comorbidity Survey. *Psychological Medicine, 29*(3), 555-567.

Kessler, R. C., Stein, M. B., & Berglund, P. (1998). Social phobia subtypes in the National Comorbidity Survey. *The American journal of psychiatry, 155*, 613-619.

Kroenke, K., Spitzer, R., & Williams, J. (2001). The PHQ-9. [10.1046/j.1525-1497.2001.016009606.x]. *Journal of General Internal Medicine, 16*(9), 606-613.

Liebowitz, M. R. (1987). Social phobia. *Modern problems of pharmacopsychiatry*.

Liebowitz, M. R., Heimberg, R. G., Schneier, F. R., Hope, D. A., Davies, S., Holt, C. S., . . . Bruch, M. A. (1999). Cognitive-behavioral group therapy versus phenelzine in social phobia: Long term outcome. *Depression and Anxiety, 10*(3), 89-98.

Magee, W. J., Eaton, W. W., Wittchen, H. U., McGonagle, K. A., & Kessler, R. C. (1996). Agoraphobia, simple phobia, and social phobia in the National Comorbidity Survey. *Archives of General Psychiatry, 53*(2), 159-159.

Neighbors, H. W., Caldwell, C., Williams, D. R., Nesse, R., Taylor, R. J., Bullard, K. M. K., . . . Jackson, J. S. (2007). Race, ethnicity, and the use of services for mental disorders: results from the National Survey of American Life. *Archives of General Psychiatry, 64*(4), 485-485.

Olfson, M., Guardino, M., Struening, E., Schneier, F. R., Hellman, F., & Klein, D. F. (2000). Barriers to the treatment of social anxiety. *American Journal of Psychiatry, 157*(4), 521-527.

Schneier, F. R., Johnson, J., Hornig, C. D., Liebowitz, M. R., & Weissman, M. M. (1992). Social phobia: comorbidity and morbidity in an epidemiologic sample. *Archives of General Psychiatry, 49*(4), 282.

Skre, I., Onstad, S., Torgersen, S., & Kringlen, E. (1991). High interrater reliability for the Structured Clinical Interview for DSM III R Axis I (SCID I). *Acta Psychiatrica Scandinavica, 84*(2), 167-173.

Stein, M. B., & Kean, Y. M. (2000a). Disability and quality of life in social phobia: epidemiologic findings. *American Journal of Psychiatry, 157*(10), 1606-1606.

Stein, M. B., & Kean, Y. M. (2000b). Disability and quality of life in social phobia: epidemiologic findings. *American Journal of Psychiatry, 157*(10), 1606.

Weeks, J. W., Heimberg, R. G., Fresco, D. M., Hart, T. A., Turk, C. L., Schneier, F. R., & Liebowitz, M. R. (2005). Empirical Validation and Psychometric Evaluation of the Brief Fear of Negative Evaluation Scale in Patients With Social Anxiety Disorder. [10.1037/1040-3590.17.2.179]. *Psychological Assessment, 17*(2), 179-190.

Weeks, J. W., Spokas, M. E., & Heimberg, R. G. (2007). Psychometric evaluation of the Mini-Social Phobia Inventory (Mini-SPIN) in a treatment-seeking sample. [10.1002/da.20250]. *Depression and Anxiety, 24*(6), 382-391.

Westenberg, H. G. M. (1998). The nature of social anxiety disorder. *Journal of Clinical Psychiatry, 59*.

Williams, J., & Gibbon, M. (1992). The structured clinical interview for DSM-III-R (SCID): II. Multisite test-retest reliability. *Archives of General Psychiatry, 49*(8), 630-636.

Wilson, I. (2005). Screening for social anxiety disorder in first year university students. *Australian Family Physician, 34*(11), 983-984.

Wittchen, H. U., Fuetsch, M., Sonntag, H., Müller, N., & Liebowitz, M. (2000). Disability and quality of life in pure and comorbid social phobia. Findings from a controlled study. *European Psychiatry, 15*(1), 46-58.

# CHAPTER 5

# CONCLUSION

## 5.1 Summary

Taken together, the studies in this dissertation represent the first investigation to-date that assesses how minority status, discrimination, and racial identity impact SocAD symptoms, interventions, and assessment. In Chapter 2, the relationship between discrimination and SocAD was investigated. Logistic regression analyses indicated that everyday but not major experiences of discrimination are associated with Social Anxiety Disorder for African Americans, Caribbean blacks and non-Hispanic whites. The theory of racial battle fatigue states that repeated microagressions, or subtle attacks/invalidations due to one's racial/ethnic identification, in the social realm can lead to social-psychological stress responses (Smith, et al., 2007), thus, providing a useful theoretical framework for understanding the relationship between discrimination and SocAD. This study adds to the extant literature by demonstrating that specific types of discrimination may be uniquely associated with SocAD for different ethnic/racial groups and identifies a new correlate of SocAD in a national sample of African Americans and Caribbean blacks.

In Chapter 3, racial identity was introduced as a possible protective factor for SocAD symptoms. Multiple regression analyses showed that racial discrimination and one component of racial identity, private regard, were associated with SocAD symptoms. Experiencing more racial discrimination was significantly associated with higher reports of social anxiety symptoms, while feeling more positively about one's race (high private regard) was associated with less SocAD symptoms. This represented the first study to demonstrate that racial discrimination and racial identity are related to SocAD symptoms

in a low income, African American population. These results are also consistent with theories about SocAD which posit that individuals with this condition have negative representations of the self and lower levels of self-esteem (Hope, et al., 1990; Leary, 1990). As discussed in Chapter 3, understanding the link between racial identity, discrimination, and SocAD can inform future interventions for SocAD.

In Chapter 4, the Mini-SPIN, a three item screener for SocAD, was evaluated in a low-income, largely minority population. Results from this study showed that a cut-off score of 5 on the Mini-SPIN yielded strong sensitivity (0.87) and adequate specificity (0.63) as a diagnostic cut-off point for generalized social anxiety disorder (GSocAD) whereas a cut-off score of 4 yielded strong sensitivity (0.92) and specificity (0.66) for assessing either generalized or non-generalized SocAD. The Mini-SPIN was moderately correlated with other self-report measures of SocAD, lending support to the growing body of research showing that the Mini-SPIN has strong convergent validity. Furthermore, the Mini-SPIN was correlated with self-report measures of anxiety and depression, but to a lesser degree, indicating the Mini-SPIN has adequate discriminative validity.

Study 3 represents the first study to assess the psychometric properties of the Mini-SPIN in a primarily African American, low-income sample, and the first study to evaluate the usefulness of the Mini-SPIN as a screener for non-generalized SocAD. Overall, the Mini-SPIN demonstrated sound psychometric properties in this sample, adding to the growing body of research thus showing the Mini-SPIN works well in a variety of populations. This investigation of the Mini-SPIN adds an evaluation of culturally competent assessment component to this dissertation.

## 5.2 Theoretical Implications

Critical race theory suggests that racism is ingrained in the fabric and system of American society as a social construction that influences power structures in the U.S. (Delgado & Stefancic, 2012). Chester Pierce first coined the term microaggressions to refer to subtle, cumulative race-based mini-attacks on African Americans in the U.S. and argued that this more subtle form of racism forms the majority of modern experiences of racism for African Americans in this country (Pierce, 1974, 1995). Researchers have found consistently experiencing these mini-assaults can lead to a cumulative burden, which impacts experiences on college campuses (Solorzano, Ceja, & Yosso, 2000), counseling relationships (Sue et al., 2007) and depressive symptoms (Torres, Driscoll, & Burrow, 2010).

As a central feature of SocAD is discomfort in social relationships, the link between SocAD and everyday discrimination found in this study can theoretically contextualized by understanding the literature on the effects of microagressions. The theory of racial battle fatigue posits that repeated racial microaggressions can lead to social-psychological stress responses such as emotional and social withdrawal, loss of confidence, avoidance, a tendency to keep quiet, increased anxiety/worrying and elevated heartbeat (Smith, et al., 2007), which, as suggested earlier, are conceptually similar to SocAD symptoms. Additionally, theories about SocAD in minority populations posit that cultural mistrust may lead to increased anxiety in social situations, as African Americans may worry about negative interactions with members of different racial and ethnic groups (Hunter & Schmidt, 2010). Furthermore, Plant and Devine (2003) draw on previous theories from the prejudice and social anxiety literatures to propose a model of intergroup anxiety which may

also help explain the link between perceived discrimination and SocAD. They suggest that poor previous experiences with outgroup members can create negative expectations surrounding interracial relations, which may result in intergroup anxiety (Plant & Devine, 2003). In many ways, this theoretical framework mirrors cognitive-behavioral theories of the development of SocAD, where overestimation of the severity of negative evaluation lead to fear and avoidance of social interactions (Rapee & Heimberg, 1997). Thus, this dissertation provides support for the theoretical models that suggest that racial microagresions can lead to stress in U.S. black populations by establishing a link between everyday discrimination and social anxiety.

### 5.3 Future directions

The findings from this dissertation provide several avenues for possible future research. First, the investigation of the relationship between identity, discrimination, and SocAD is a new area. Additional work is needed with more diverse U.S. black populations; it may be the case that socioeconomic status is differentially related to discrimination and identity for minority groups, as previous research has found higher levels of discrimination for those with low socioeconomic status (Ren, Amick, & Williams, 1999). Furthermore, while this dissertation focused solely on U.S. black populations, the MMRI has also been adapted to evaluate racial identity in other minority populations such as Asian Americans; research indicates that it is a valid assessment of racial identity in these populations (Philip, 2007). Future work may want to investigate the interplay between racial identity, discrimination, and SocAD in other minority groups such as Asian or Hispanic populations, as heath disparities research shows that these groups also have lower levels of treatment utilization (Fiscella, Franks, Doescher, & Saver, 2002; Hoberman, 1992).

Furthermore, if future studies find that there is a connection between racial identity, discrimination, and social anxiety symptoms for multiple racial groups, perhaps these findings could be incorporated into treatments for a variety of minority populations, rather than solely focusing on African American samples. More general culturally appropriate treatment is important for a variety of reasons. First, designing, developing, and disseminating treatments for many racial groups would be quite costly. Given the vast amount of diversity in the U.S., the number of possibilities for targeting treatments to every different racial and cultural group would be very high, and, thus, financially unreasonable (Hall, 2001; Kazdin, 2000). Moreover, there are often conceptual and empirical problems with labels of race and ethnicity which can obscure heterogeneity, further complicating attempts to tailor treatments (Miranda et al., 2003). Furthermore, if separate treatments existed for a large number of minority groups, the training burden on therapists (particularly those who treat a diverse population) would also be high, as developing competency with a variety of cultural groups is labor intensive (Sue, 1998). Additionally, for therapists who serve a diverse clientele, it would be difficult remain competent in targeted treatments, as these practitioners may not have an adequate flow of clients requiring a specific treatment.

However, many studies indicate that specifically tailoring treatments to the group served can improve treatment adherence and outcomes (Benish, Quintana, & Wampold, 2011; Griner & Smith, 2006), and the current mental health treatments that exist are not meeting the needs of minority populations (Neighbors, et al., 2007). Thus, a new approach is needed. An important first step is that standard empirically supported treatments need to be tested in minority groups to better determine where these treatments succeed and fail

(Whaley & Davis, 2007). Second, since it is not feasible for the majority of clinicians to learn specific treatments for every minority population, future research should consider investigating common factors inherent in the minority experience. Several constructs that have been linked to mental health and have been found to distinguish racial-ethnic minorities from those in the majority are discrimination, interdependence, and spirituality (Hall, 2001). Multicultural researchers stress that common, universal factors, may provide a starting point for investigators to study a more culturally competent therapy that has the potential for use for multiple minority groups (Bernal, Jiménez-Chafey, & Domenech Rodríguez, 2009). This dissertation provides further evidence that experiences of discrimination may be one of these common factors for minority populations that are tied to mental health, adding to the literature suggesting that common factors underlying minority experience may be important treatment targets.

Thus, future intervention studies could consider adding in a component to address experiences of discrimination. As suggested in Chapter 3, in a group therapy setting this could take the form of a psycho-education module focusing on the relationship between discrimination and mental health. If it is the case that adding in more general modifications to standard treatments improves the experience of minorities receiving mental health services, this could be a way to meet client needs while also balancing funding constraints and therapist training limitations. Currently, therapists who wish to be more culturally competent are encouraged to be open to different opinions, examine self-biases, and promote mutuality and respect (Ahmed, Wilson, Henriksen, & Jones, 2011). While these factors are very important (Sue, 1998), the low levels of service utilization and higher dropout rates among minorities signify that additional modifications to existing treatments

are still needed (Griner & Smith, 2006; Neighbors, et al., 2007). Thus, randomized controlled trials would be needed to determine whether the general modifications suggested are better than treatment as usual, given that any modification increases the training load for therapists.

Additionally, this dissertation only focused on one identity dimension, racial identity. Other types of identity that have been studied in the literature include gender, sexual orientation, age, etc (Ashmore, Deaux, & McLaughlin-Volpe, 2004), and discrimination may be attributed to many of these factors (Williams, Jackson, et al., 1997). Research indicates that many types of identity, including ethnic identity, gender-role identity, and spiritual identity are associated with mental health functioning (Koenig, 2009; Kopper, 1993; Smith & Silva, 2011). Since this dissertation only focused on racial identity, it is also not possible to determine whether racial identity is the most salient identity for U.S. black groups. Although our findings in Chapter 2 indicated that African Americans and Caribbean blacks were most likely to attribute discrimination to race-based factors, making the investigation of racial identity an important first target, comparing the relationships of multiple components of identity would allow for a more complete understanding of how identity influences social anxiety symptoms.

Another way to investigate the interplay between identity, discrimination and social anxiety would be to conduct qualitative interviews. Benefits of qualitative interviews include gaining a more holistic overview of people's behaviors and getting a more comprehensive look at an individual's thoughts and feelings (Mariampolski, 2001). It can also help to ensure that treatments are more clearly targeted towards client needs and avoid mismatches between provider and client. The qualitative literature shows that attending to

these factors can lead to increased client empowerment and improve the quality of care (van't Riet, Berg, Hiddema, & Sol, 2001). Qualitative data would allow for a more in depth look at how individuals experience discrimination and racial identity and allow for a more comprehensive understanding of how these factors may impact the development and maintenance of SocAD and how these factors could inform treatement.

## 5.4 Final thoughts

The central objective of this dissertation is to identify racial and cultural factors associated with SocAD, to help address mental health disparities that exist for low income and minority populations. Furthermore, it seeks to investigate how these factors may relate to both assessment strategies and treatments for anxiety conditions. Specific suggestions for potential treatment modifications and culturally appropriate assessment strategies are presented, and suggestions for future work in these areas are outlined. SocAD, as the most common anxiety disorder in the U.S., presents a significant mental health problem, impacting social and vocational functioning as well as quality of life (Stein & Stein, 2008; Turk, Heimberg, & Hope, 2001). Understanding this disorder in minority populations is highly significant given the current disparities in mental health treatment in the U.S. for minority groups (Atdjian & Vega, 2005; Chow, Jaffee, & Snowden, 2003). This dissertation represents a step toward advancing our understanding of the racial and cultural factors that impact SocAD assessment and treatment and provides potential avenues for enhancing our ability to help people who suffer from this disorder.

## 5.5 References


Ahmed, S., Wilson, K., Henriksen, R., & Jones, J. (2011). What does it mean to be a culturally-competent counselor. *Journal for Social Action in Counseling and Psychology, 3*(1), 17-28.

Ashmore, R. D., Deaux, K., & McLaughlin-Volpe, T. (2004). An organizing framework for collective identity: articulation and significance of multidimensionality. *Psychological Bulletin, 130*(1), 80.

Atdjian, S., & Vega, W. A. (2005). Disparities in mental health treatment in US racial and ethnic minority groups: implications for psychiatrists. *Psychiatric Services, 56*(12), 1600-1602.

Benish, S. G., Quintana, S., & Wampold, B. E. (2011). Culturally adapted psychotherapy and the legitimacy of myth: a direct-comparison meta-analysis. *Journal of Counseling Psychology, 58*(3), 279.

Bernal, G., Jiménez-Chafey, M. I., & Domenech Rodríguez, M. M. (2009). Cultural adaptation of treatments: A resource for considering culture in evidence-based practice. *Professional Psychology: Research and Practice, 40*(4), 361.

Chow, J. C.-C., Jaffee, K., & Snowden, L. (2003). Racial/ethnic disparities in the use of mental health services in poverty areas. *American Journal of Public Health, 93*(5), 792-797.

Delgado, R., & Stefancic, J. (2012). *Critical race theory*: NYU Press.

Fiscella, K., Franks, P., Doescher, M. P., & Saver, B. G. (2002). Disparities in health care by race, ethnicity, and language among the insured: findings from a national sample. *Medical Care, 40*(1), 52-59.

Griner, D., & Smith, T. B. (2006). Culturally adapted mental health intervention: A meta-analytic review. *Psychotherapy: Theory, research, practice, training, 43*(4), 531.

Hall, G. C. N. (2001). Psychotherapy research with ethnic minorities: empirical, ethical, and conceptual issues. *Journal of Consulting and Clinical Psychology, 69*(3), 502.

Hoberman, H. M. (1992). Ethnic minority status and adolescent mental health services utilization. *The Journal of Mental Health Administration, 19*(3), 246-267.

Hope, D. A., Rapee, R. M., Heimberg, R. G., & Dombeck, M. J. (1990). Representations of the self in social phobia: Vulnerability to social threat. *Cognitive Therapy and Research, 14*(2), 177-189.

Hunter, L. R., & Schmidt, N. B. (2010). Anxiety psychopathology in African American adults: literature review and development of an empirically informed sociocultural model. *Psychological Bulletin, 136*(2), 211.

Kazdin, A. E. (2000). *Psychotherapy for children and adolescents: Directions for research and practice*: Oxford University Press.

Koenig, H. G. (2009). Research on religion, spirituality, and mental health: A review. *Canadian Journal of Psychiatry, 54*(5), 283-291.

Kopper, B. A. (1993). Role of gender, sex role identity, and Type A behavior in anger expression and mental health functioning. *Journal of Counseling Psychology, 40*(2), 232.

Leary, M. R. (1990). Responses to social exclusion: Social anxiety, jealousy, loneliness, depression, and low self-esteem. *Journal of Social and Clinical Psychology, 9*(2), 221-229.

Mariampolski, H. (2001). *Qualitative market research*: Sage.

Miranda, J., Duan, N., Sherbourne, C., Schoenbaum, M., Lagomasino, I., Jackson-Triche, M., & Wells, K. B. (2003). Improving care for minorities: can quality improvement interventions improve care and outcomes for depressed minorities? Results of a randomized, controlled trial. *Health Services Research, 38*(2), 613-630.

Neighbors, H. W., Caldwell, C., Williams, D. R., Nesse, R., Taylor, R. J., Bullard, K. M. K., . . . Jackson, J. S. (2007). Race, ethnicity, and the use of services for mental disorders: results from the National Survey of American Life. *Archives of General Psychiatry, 64*(4), 485-485.

Philip, C. (2007). *Asian American identities: Racial and ethnic identity issues in the twenty-first century*: Cambria Press.

Pierce, C. (1974). Psychiatric problems of the Black minority. In S. Arieti (Ed.), *American handbook of psychiatry* (Vol. 2, pp. 512-523).

Pierce, C. (1995). Stress analogs of racism and sexism: Terrorism, torture, and disaster. In C. V. Willie, P. P. Rieker, B. M. Kramer & B. S. Brown (Eds.), *Mental health, racism, and sexism* (pp. 277-293). Pittsburgh, PA: University of Pittsburgh Press.

Plant, E. A., & Devine, P. G. (2003). The antecedents and implications of interracial anxiety. *Personality and Social Psychology Bulletin, 29*(6), 790-801.

Rapee, R. M., & Heimberg, R. G. (1997). A cognitive-behavioral model of anxiety in social phobia. *Behaviour Research and Therapy, 35*(8), 741-756.

Ren, X. S., Amick, B. C., & Williams, D. R. (1999). Racial/ethnic disparities in health: the interplay between discrimination and socioeconomic status. *Ethnicity and Disease, 9*(2), 151.

Smith, T. B., & Silva, L. (2011). Ethnic identity and personal well-being of people of color: a meta-analysis. *Journal of Counseling Psychology, 58*(1), 42.

Smith, W. A., Allen, W. R., & Danley, L. L. (2007). Assume the position... you fit the description. *American Behavioral Scientist, 51*(4), 551.

Solorzano, D., Ceja, M., & Yosso, T. (2000). Critical race theory, racial microaggressions, and campus racial climate: The experiences of African American college students. *Journal of Negro Education*, 60-73.

Stein, M. B., & Stein, D. J. (2008). Social anxiety disorder. *The Lancet, 371*(9618), 1115-1125.

Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A., Nadal, K. L., & Esquilin, M. (2007). Racial microaggressions in everyday life: implications for clinical practice. *American Psychologist, 62*(4), 271.

Sue, S. (1998). In search of cultural competence in psychotherapy and counseling. *American Psychologist, 53*(4), 440.

Torres, L., Driscoll, M. W., & Burrow, A. L. (2010). Racial microaggressions and psychological functioning among highly achieving African-Americans: A mixed-methods approach. *Journal of Social and Clinical Psychology, 29*(10), 1074-1099.

Turk, C. L., Heimberg, R. G., & Hope, D. A. (2001). Social anxiety disorder. *Clinical handbook of psychological disorders: A step-by-step treatment manual, 3*, 114-153.

van't Riet, A., Berg, M., Hiddema, F., & Sol, K. (2001). Meeting patients' needs with patient information systems: potential benefits of qualitative research methods. *International Journal of Medical Informatics, 64*(1), 1-14.

Whaley, A. L., & Davis, K. E. (2007). Cultural competence and evidence-based practice in mental health services: A complementary perspective. *American Psychologist, 62*(6), 563.

Williams, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socio-economic status, stress and discrimination. *Journal of Health Psychology, 2*(3), 335-351.

APPENDIX A

MAJOR EXPERIENCES OF DISCRIMINATION –DAS ‘95

In the following questions, we are interested in the way other people have treated you or your *beliefs* about how other people have treated you. Can you tell me if *any* of the following has ever happened to you BECAUSE OF YOUR RACE:

1. At any time in your life, have you ever been unfairly fired or denied promotion?

When was the last time this happened?

1 Within the last week
2 Within the last year
3 Within the last month
4 More than a year ago

How many times has this happened during your lifetime? _____
NUMBER OF TIMES (1-97)

2. For unfair reasons, have you ever not been hired for a job

When was the last time this happened?

1 Within the last week
2 Within the last year
3 Within the last month
4 More than a year ago

How many times has this happened during your lifetime? _____
NUMBER OF TIMES (1-97)

3. Have you unfairly stopped, searched, questioned, physically threatened or abused by the police?

When was the last time this happened?

1 Within the last week
2 Within the last year
3 Within the last month
4 More than a year ago

How many times has this happened during your lifetime? _____
NUMBER OF TIMES (1-97)

## APPENDIX B

## EVERY DAY DISCRIMINATION - DAS ‘95

In your day-to-day life how often have any of the following things happened to you BECAUSE OF YOUR RACE? (Would you say almost everyday, at least once a week, a few times a month, a few times a year or less than once a year?) Almost everyday (1) At least once a week (2) A few times a month (3) A few times a year (4) Less than once a year (5) (IF VOL:) Never (6)

1. You are treated with less courtesy than other people.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Almost Everyday | At least once a week | A few times a month | A few times a year | Less than once a year | Never |

2. You are treated with less respect than other people.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Almost Everyday | At least once a week | A few times a month | A few times a year | Less than once a year | Never |

3. You receive poorer service than other people at restaurants or stores.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Almost Everyday | At least once a week | A few times a month | A few times a year | Less than once a year | Never |

4. People act as if they think you are not smart.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Almost Everyday | At least once a week | A few times a month | A few times a year | Less than once a year | Never |

5. People act as if they are afraid of you.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Almost Everyday | At least once a week | A few times a month | A few times a year | Less than once a year | Never |

6. People act as if they think you are dishonest.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Almost Everyday | At least once a week | A few times a month | A few times a year | Less than once a year | Never |

7. People act as if they're better than you are.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Almost Everyday | At least once a week | A few times a month | A few times a year | Less than once a year | Never |

8. You are called names or insulted.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Almost Everyday | At least once a week | A few times a month | A few times a year | Less than once a year | Never |

9. You are threatened or harassed.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Almost Everyday | At least once a week | A few times a month | A few times a year | Less than once a year | Never |

10. You are followed around in stores.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Almost Everyday | At least once a week | A few times a month | A few times a year | Less than once a year | Never |

APPENDIX C

LIEBOWITZ SOCIAL ANXIETY SCALE

**Instructions:**

*The interviewer should rate each item with 0 (none), 1 (mild), 2 (moderate) or 3 (severe) based upon the patient's actual experience of the past week. Each item should be given only one score for Fear and one score for Avoidance. If the participant did not enter the feared situation in the past week, rate the item according to what would have been the participant's level of fear if the feared situation was encountered and would the patient have avoided it. Check the box next to whichever question the subject answered.*

**Anxiety:**

Interviewer: "People often get nervous in social situations. I am going to ask you about situations that might be scary for you or make you nervous. I am going to ask you how nervous you were in several situations that might have come up in the past week. (*Give the anxiety rating card to the participant.)* Here is the scale we are going to use to answer the questions. *(Point to each item as you explain.)* If you were not nervous at all in the situation, you would rate it 0 or None. If you were a little nervous in the situation, rate it 1 or Mild. If you were very nervous, rate it 3 or Severe. If you were somewhere between a little nervous and very nervous, rate it 2 or Moderate. So your choices are 0 or None, 1 or Mild, 2 or Moderate, and 3 or Severe. Some of the situations might not have come up over the past week. If the situation did not come up, I will ask you how scary it would have been or how nervous you would have felt if you were in that situation."

| | Fear or Anxiety<br>**0 = None**<br>**1 = Mild**<br>**2 = Moderate**<br>**3 = Severe** |
|---|---|
| 1. ☐ **"In the past week, how nervous did you feel when you made a telephone call in public?"** *If the participant did not telephone in public say,* ☐ "***Can you rate how much nervousness you would have felt if you made a telephone call in public****?"* (P) | |
| 2. ☐ **"In the past week, how nervous did you feel when you were participating in small groups?** *If the participant did not participate in small groups say,* ☐ *"**Can you rate how much nervousness you would have felt if you participated in a small group?**"* (P) | |
| 3. ☐ **"In the past week, how nervous did you feel when you were eating in public places?"** *If the participant did not eat in a public place say,* ☐ *"**Can you rate how nervous you would have been while eating in public places?**"* (P) | |
| 4. ☐ "**In the past week, how nervous did you feel when you were drinking non-alcoholic beverages with others in public places?"** *If the participant did not drink in a public place say,* ☐ *"**Can you rate how nervous you would have been while drinking non-alcoholic beverages in public places?**"* (P) | |

5. ☐ **"In the past week, how nervous did you feel when you were talking to people in authority?"** *If the participant did not talk to somebody in authority say,* ☐ ***"Can you rate how nervous you would have been while talking to people in authority?"*** (S)

6. ☐ **"In the past week, how nervous did you feel when acting, performing or giving a talk in front of an audience?"** *If the participant did not act, perform, or give a talk in front of an audience say,* ☐ ***"Can you rate how nervous you would have been while talking to people in authority?"*** (P)

7. ☐ **"In the past week, how nervous did you feel when going to a party or social gathering*?"** *If the participant did not go to a party say,* ☐ ***"Can you rate how nervous you would have been if you went to a party or social gathering, and remember it does not have to involve alcohol or illegal drugs?"*** (S)

8. ☐ **"In the past week, how nervous did you feel when you were working while being observed?"** *If the participant did not work while being observed say,* ☐ ***"Can you rate how nervous you would have been if you were working while being observed?"*** (P)

9. ☐ **"In the past week, how nervous did you feel while you were writing while being observed?"** *If the participant did not write while being observed say,* ☐ ***"Can you rate how nervous you would have felt if you were writing while being observed?"*** (P)

10. ☐ **"In the past week, how nervous did you feel when calling someone you don't know very well?"** *If the participant did not call someone they didn't know very well say,* ☐ ***"Can you rate how nervous you would have felt if you were calling someone you don't know very well?"*** (S)

11. ☐ **"In the past week, how nervous did you feel while talking with people you don't know very well?"** *If the participant did not talk with people they didn't know very well say,* ☐ ***"Can you rate how nervous you would have felt if you talked with people you didn't know very well?"*** (S)

12. ☐ **"In the past week, how nervous did you feel when meeting strangers?"** *If the participant did not meet strangers say,* ☐ ***"Can you rate how nervous you would have felt if you met strangers?"*** (S)

13. ☐ **"In the past week, how nervous did you feel when urinating in a public restroom?"** *If the participant did not urinate in a public restroom say,* ☐ ***"Can you rate how nervous you would have felt if you urinated in a public restroom?"*** (P)

14. ☐ **"In the past week, how nervous did you feel when entering a room when others are already seated?"** *If the participant did not enter a room when others were already seated say,* ☐ ***"Can you rate how nervous you would have felt if you entered a room when others are already seated?"*** (P)

15. ☐ **"In the past week, how nervous did you feel when being the center of attention?"** *If the participant was not the center of attention say,* ☐ ***"Can you rate how nervous you would have felt if you had been the center of attention?"*** (S)

16. ☐ **"In the past week, how nervous did you feel while speaking up at a meeting?"** *If the participant did not speak up at a meeting say,* ☐ ***"Can you rate how nervous you would have felt if you had spoken up at a meeting?"*** (P)

17. ☐ **"In the past week, how nervous did you feel while taking a test?"** *If the participant did not take a test say,* ☐ ***"Can you rate how nervous you would have felt if you had taken a test?"*** (P)

18. ☐ **"In the past week, how nervous did you feel when expressing a disagreement or disapproval to people you don't know very well?"** *If the participant did not express disagreement or disapproval to people they didn't know very well say,* ☐ ***"Can you rate how nervous you would have felt if you disagreed or disapproved with people you didn't know very well?"*** (S)

19. ☐ **"In the past week, how nervous did you feel when looking at people you don't know very well in the eyes?"** *If the participant did not look at people they didn't know very well in the eyes say,* ☐ ***"Can you rate how nervous you would have felt if you looked at people you don't know very well in the eyes?"*** (S)

| | |
|---|---|
| 20. ☐ **"In the past week, how nervous did you feel when giving a report to a group?"** *If the participant did not give a report to a group say,* ☐ ***"Can you rate how nervous you would have felt if you gave a report to a group?"*** (P) | |
| 21. ☐ **"In the past week, how nervous did you feel when asking someone on a date?"** *If the participant did not ask someone on a date say,* ☐ ***"Can you rate how nervous you would have felt if you asked someone on a date?"*** (P) | |
| 22. ☐ **"In the past week, how nervous did you feel when returning goods to a store?"** *If the participant did not return goods to a store say,* ☐ ***"Can you rate how nervous you would have felt if you had returned goods to a store?"*** (S) | |
| 23. ☐ **"In the past week, how nervous did you feel when giving a party or social gathering?"** *If the participant did not give a party say,* ☐ ***"Can you rate how nervous you would have felt if you gave a party or social gathering, and remember it does not have to involve alcohol or illegal drugs?"*** (S) | |
| 24. ☐ **"In the past week, how nervous did you feel when resisting a high pressure salesperson?"** *If the participant did not resist a high pressure salesperson say,* ☐ ***"Can you rate how nervous you would have been if resisting a high pressure salesperson?"*** (S) | |

**Avoidance:** "Often people avoid or try to get out of social situations that are scary or make them nervous. I am going to ask you about the same situations and I want you to think about how much you avoided or tried to get out of doing them. Again, I want you to only think about the past week. (*Give the avoidance rating card to the participant.)* Here is the scale we are going to use to answer the questions. *(Point to each item as you explain.)* If the situation came up and you did not try to get out of it, you would rate it a 0 or Never. If you tried to get out of it sometimes, you would rate it a 1 or Occasionally. If you tried to get out of it most of the time, you would rate it a 2 or Often. If you almost always tried to get out of it, rate it 3 or Usually. So your choices are 0 or Never, 1 or Occasionally, 2 or Often, and 3 or Usually. Some of the situations might not have come up over the past week. If the situation did not come up, I will ask you what you would have done – never tried to get out of it, or tried to get out of it some of the time, most of the time or all of the time."

| | **Avoidance – Try to get out of doing it**<br>**0 = Never**<br>**1 = Occasionally (some of the time)**<br>**2 = Often (most of the time)**<br>**3 = Usually (almost always)** |
|---|---|
| 1. ☐ **"In the past week, how much did you try to get out of making a telephone call in public?"** *If the participant did not telephone in public say,* ☐ ***"Can you rate how much you would have tried to get out of making a telephone in public?"*** (P) | |
| 2. ☐ **"In the past week, how much did you try to get out of participating in small groups?"** *If the participant did not participate in small groups say,* ☐ ***"Can you rate how much you would have tried to get out of participating in small groups?"*** (P) | |
| 3. ☐ **"In the past week, how much did you try to get out of eating in public places?"** *If the participant did not eat in public say,* ☐ ***"Can you rate how much you would have tried to get out of eating in public?"*** (P) | |

4. ☐ **"In the past week, how much did you try to get out of drinking non-alcoholic beverages with others in public places?"** *If the participant did not drink in public places say,* ☐ ***"Can you rate how much you would have tried to get out of drinking non-alcoholic beverages with others in public places?"*** (P)

5. ☐ **"In the past week, how much did you try to get out of talking to people in authority?"** *If the participant did not talk to people in authority say,* ☐ ***"Can you rate how much you would have tried to get out of talking to people in authority?"*** (S)

6. ☐ **"In the past week, how much did you try to get out of acting, performing or giving a talk in front of audience?"** *If the participant did not act, perform or give a talk in front of the audience say,* ☐ ***"Can you rate how much you would have tried to get out of acting, performing or giving a talk in front of an audience?***" (P)

7. ☐ **"In the past week, how much did you try to get out of going to a party or social gathering*?"** *If the participant did not go to a party say,* ☐ ***"Can you rate how much you would have tried to get out of going to a party or social gathering, and remember it does not have to involve alcohol or illegal drugs?"*** (S)

8. ☐ **"In the past week, how much did you try to get out of working while being observed?"** *If the participant did not work while being observed say,* ☐ ***"Can you rate how much you would have tried to get out of working while being observed?"*** (P)

9. ☐ **"In the past week, how much did you try to get out of writing while being observed?"** *If the participant did not write while being observed say,* ☐ ***"Can you rate how much you would have tried to get out of writing while being observed?"*** (P)

10. ☐ **"In the past week, how much did you try to get out of calling someone you don't know very well?"** *If the participant did not call someone they don't know very well say,* ☐ ***"Can you rate how much you would have tried to get out of calling someone you don't know very well?"*** (S)

11. ☐ **"In the past week, how much did you try to get out of talking with people you don't know very well?"** *If the participant did not talk with people they don't know very well say,* ☐ ***"Can you rate how much you would have tried to get out of talking with people you don't' know very well?"*** (S)

12. ☐ **"In the past week, how much did you try to get out of meeting strangers?"** *If the participant did not meet any*

*strangers say,* ☐ ***"Can you rate how much you would have tried to get out of meeting strangers?"*** (S)

13. ☐ **"In the past week, how much did you try to get out of urinating in a public restroom?"** *If the participant did not urinate in a public restroom say,* ☐ ***"Can you rate how much you would have tried to get out of urinating in a public restroom?"*** (P)

14. ☐ **"In the past week, how much did you try to get out of entering a room when others are already seated?"** *If the participant did not enter a room when others were already seated say,* ☐ ***"Can you rate how much you would have tried to get out of entering a room when others are already seated?"*** (P)

15. ☐ **"In the past week, how much did you try to get out of being the center of attention?"** *If the participant was not the center of attention say,* ☐ ***"Can you rate how much you would have tried to get out of being the center of attention?"*** (S)

16. ☐ **"In the past week, how much did you try to get out of speaking up at a meeting?"** *If the participant did not speak up at a meeting say,* ☐ ***"Can you rate how much you would have tried to get out of speaking up at a meeting?"*** (P)

17. ☐ **"In the past week, how much did you try to get out of taking a test?"** *If the participant did not have the opportunity to take a test say,* ☐ ***"Can you rate how much you would have tried to get out of taking a test?"*** (P)

18. ☐ **"In the past week, how much did you try to get out of expressing a disagreement or disapproval to people you don't know very well?"** *If the participant did not have the opportunity to express a disagreement or disapproval say,* ☐ ***"Can you rate how much you would have tried to get out of disagreeing or disapproving to people you don't know very well?"*** (S)

19. ☐ **"In the past week, how much did you try to get out of looking at people you don't know very well in the eyes?"** *If the participant did not have the opportunity to look people in the eyes say,* ☐ *"Can you rate how much you would have tried to get out of looking at people you don't know very well in the eyes?"* (S)

20. ☐ **"In the past week, how much did you try to get out of giving a report to a group?"** *If the participant did not have the opportunity to give a report to a group say,* ☐ ***"Can you rate how much you would have tried to get out of giving a report to a group?"*** (P)

21. ☐ **"In the past week, how much did you try to get out of asking someone on a date?"** *If the participant did not have the opportunity to ask someone on a date say,* ☐ ***"Can you rate how much you would have tried to get out of asking someone on a date?"*** (P)

22. ☐ **"In the past week, how much did you try to get out of returning goods to a store?"** *If the participant did not have the opportunity to return goods to a store say,* ☐ ***"Can you rate how much you would have tried to get out of returning goods to a store?"*** (S)

23. ☐ **"In the past week, how much did you try to get out of giving a party or social gathering?"** *If the participant did not have the opportunity to give a party say,* ☐ ***"Can you rate how much you would have tried to get out of giving a party or social gathering, and remember it does not have to involve alcohol or illegal drugs?"*** (S)

24. ☐ **"In the past week, how much did you try to get out of resisting a high pressure salesperson?"** *If the participant did not have the opportunity to resist a high pressure salesperson say,* ☐ ***"Can you rate how much you would have tried to get out of resisting a high pressure salesperson?"*** (S)

## APPENDIX D

## MULTIDIMENSIONAL INVENTORY OF BLACK IDENTITY (CENTRALITY AND REGARD SUBSCALES)

Please rate on a 7 point scale the degree to which you agree with the following statements (This measure may also substitute different races for black depending on who is receiving the questionnaire).

| | **SD** | | | **NEUTRAL** | | | **SA** |
|---|---|---|---|---|---|---|---|
| 1. Overall, being Black has a lot to do with how I feel about myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. In general, being Black is an important part of my self-image. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. My destiny is tied to the destiny of other Black people. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. Being Black is important to my sense of what kind of person I am. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. I have a strong sense of belonging to Black people. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. I have a strong attachment to other Black people. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. Being Black is an important reflection of who I am. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. Being Black is a major factor in my social relationships. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. I feel good about Black people. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. I am happy that I am Black. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. I feel that Blacks have made major accomplishments and advancements. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. I do not regret that I am Black. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 13. I am proud to be Black. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. I feel that the Black community has made valuable contributions to this society. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. Overall, Blacks are considered good by others. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. In general, others respect Black. people. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17. Most people consider Blacks, on the average, to be more effective than other racial groups. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18. Blacks are respected by the broader society. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19. In general, other groups view Blacks in a positive manner. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20. Society views Black people as an asset. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

# APPENDIX E

MINI-SOCIAL PHOBIA INVENTORY (MINI-SPIN)

Please choose the answer that best describes how much the following problems have bothered you during the past week. Check on the box for each problem and be sure to answer all the items.

| | Not at all 0 | A little bit 1 | Somewhat 2 | Very much 3 | Extremely 4 |
|---|---|---|---|---|---|
| 1. Fear of embarrassment causes me to avoid doing things or speaking to people. | ○ | ○ | ○ | ○ | ○ |
| 2. I avoid activities in which I am the center of attention | ○ | ○ | ○ | ○ | ○ |
| 3. Being embarrassed or looking stupid are among my worse fears | ○ | ○ | ○ | ○ | ○ |

## APPENDIX F

## BRIEF FEAR OF NEGATIVE EVALUATION SCALE

Read each of the following statements carefully and indicate how characteristic it is of you according to the following scale:

1 = Not at all characteristic of me
2 = Slightly characteristic of me
3 = Moderately characteristic of me
4 = Very characteristic of me
5 = Extremely characteristic of me

____ 1. I worry about what other people will think of me even when I know it doesn't make any difference.

____ 2. I am unconcerned even if I know people are forming an unfavorable impression of me.

_____ 3. I am frequently afraid of other people noticing my shortcomings.

_____ 4. I rarely worry about what kind of impression I am making on someone.

_____ 5. I am afraid others will not approve of me.

_____ 6. I am afraid that people will find fault with me.

_____ 7. Other people's opinions of me do not bother me.

_____ 8. When I am talking to someone, I worry about what they may be thinking about me.

_____ 9. I am usually worried about what kind of impression I make.

_____ 10. If I know someone is judging me, it has little effect on me.

_____ 11. Sometimes I think I am too concerned with what other people think of me.

_____ 12. I often worry that I will say or do the wrong things.

APPENDIX G

BECK ANXIETY INVENTORY

Below is a list of common symptoms of anxiety. Please carefully read each item in the list. Indicate how much you have been bothered by each symptom during the PAST WEEK, INCLUDING TODAY, by placing an X in the corresponding space in the column next to each symptom.

| | Not at all | Mildly | Moderately | Severely |
|---|---|---|---|---|
| 1.Numbness or tingling. | | | | |
| 2. Feeling hot. | | | | |
| 3. Wobbliness in legs. | | | | |
| 4. Unable to relax. | | | | |
| 5. Fear of the worst happening. | | | | |
| 6. Dizzy or lightheaded. | | | | |
| 7. Heart pounding or racing. | | | | |
| 8. Unsteady. | | | | |
| 9. Terrified. | | | | |
| 10. Nervous. | | | | |
| 11. Feelings of choking. | | | | |
| 12. Hands trembling. | | | | |
| 13. Shaky. | | | | |
| 14. Fear of losing control. | | | | |
| 15. Difficulty breathing. | | | | |
| 16. Fear of dying. | | | | |

| |
|---|
| 17. Scared. |
| 18. Indigestion or discomfort in abdomen. |
| 19. Feeling faint. |
| 20. Face flushed. |
| 21. Sweating (not due to heat). |

APPENDIX H

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

**Over the last 2 weeks have you been bothered by any of the following problems?**

| | Not at all (0) | Several days (1) | More than half the days (2) | Nearly every day (3) |
|---|---|---|---|---|
| 1. Little interest or pleasure in doing things | | | | |
| 2. Feeling down, depressed or hopeless | | | | |
| 3. Trouble falling or staying asleep, or sleeping too much | | | | |
| 4. Feeling tired or having little energy | | | | |
| 5. Poor appetite or overeating | | | | |
| 6. Feeling bad about yourself-or that you are a failure or have let yourself or your family down | | | | |
| 7. Trouble concentrating on things, such as reading the newspaper or watching television | | | | |
| 8. Moving or speaking so slowly that other people could have noticed. Or the opposite-being so fidgety or restless that you have been moving around a lot more than usual | | | | |
| 9. Thoughts that you would be better off dead, or of hurting yourself in some way | | | | |

**NOTE:** If you checked off *any problems*, how *difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all___ Somewhat difficult__ Very difficult__ Extremely difficult__