Assessment of Generalized Anxiety Disorder, Panic, and Phobias with African Americans

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Generalized anxiety disorder (GAD), panic disorder with and without agoraphobia (PDA/PDWA), specific phobia, and social phobia are anxiety disorders that are commonly experienced among African Americans (Himle et al. 2009). Although burgeoning, the current empirical literature remains relatively sparse as it relates to culturally sensitive assessment of anxiety disorders. In some cases, cross-cultural comparisons denote differences between African Americans and non-Hispanic Whites (e.g., prevalence rates, Himle et al. 2009; Paradis et al. 1993; mean differences on measures of anxiety, Scott et al. 2002). However, a potential confusion in these findings is whether the psychometric properties of these assessment tools are valid in ethnically heterogeneous samples (see Melka et al. 2010) since the majority of "gold standard" instruments have been validated in non-Hispanic Whites. As such, there is a plethora of cultural factors (e.g., perceived stress, cultural mistrust, racial identity, culturally endemic explanatory models) that should be considered in order to improve the clinical utility of anxiety measures for use with

African Africans. Along these lines, the goal of this chapter is to provide an overview of cultural considerations in the assessment of GAD, panic disorder (PD), and the phobias and summarize extant literature delineating culturally specific findings on "gold standard" assessments of the aforementioned anxiety disorders. Detailed information regarding all relevant measures is provided below organized by disorder and then by assessment type (e.g., interview rating scales, self-report measures). Table 9.1 provides a summary of recommendations for the specific measures made throughout the chapter.

Generalized Anxiety Disorder

Generalized anxiety disorder (GAD) encompasses a tendency to excessively worry about future, negative events, and/or general life concerns (e.g., finances, family matters) in a fashion that causes considerable distress and a perceived inability to control one's thoughts (Barlow 2004). Associated elements of GAD include sleep disturbances, restlessness, fatigue, difficulty in concentrating, and muscle tension (American Psychiatric Association 2000). Evidence supports that individuals with debilitating worry maintain an attentional bias for threatening information in their environment, whereas the alternative is not supported in those who worry less (Carter et al. 2005). More recently, Watson (2005) grouped GAD and depression under "distress-based disorders" to account for their overlap in maintaining negative

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Table 9.1 Recommendations for using assessments with African Americans

Assessment name	Disorder assessed	Recommendations
Anxiety Diagnostic Interview Schedule-IV	GAD	*Strength*: Controls for underreporting cognitive symptoms *Limitation*: Role of cultural mistrust (Hunter and Schmidt 2010)
Hamilton Rating Scale	GAD	*Strength*: Controls for underreporting cognitive symptoms *Limitation*: Role of cultural mistrust
Penn State Worry Questionnaire	GAD	*Strength*: Identifies the excessiveness of worry and best discriminates worry in clinical populations (Hambrick et al. 2010) *Limitations*: Not an assessment of content of worry and poorly discriminates worry in subclinical populations (Hambrick et al. 2010)
Worry Domains Questionnaire	GAD	*Strength*: Describes content of worry *Limitations*: Finite number of life events examined, which may overlook culturally specific worries in African Americans
General Anxiety Disorder-Questionnaire-IV	GAD	Strengths: Examines worry according to DSM-IV criterion Incremental and divergent validity across ethnic groups (Robinson et al. 2010)
Anxiety Diagnostic Interview Schedule-Version IV	Social phobia	*Strength*: Controls for underreporting cognitive symptoms Assesses symptoms of social phobia according to DSM-IV criteria *Limitation*: Role of cultural mistrust (Hunter and Schmidt 2010) Has not been exclusively examined in African American samples
Liebowitz Social Anxiety Scale	Social phobia	*Strengths*: Good internal consistency and temporal stability in community-based African American sample (Beard et al. 2011) Can be used to diagnose social phobia *Limitations*: Further exploratory factor analysis needed to establish its utility in African American samples (Beard et al. 2011) Role of cultural mistrust (Hunter and Schmidt 2010)
Social Interaction Anxiety Scale and Social Phobia Scale	Social phobia	*Strengths*: Good internal consistency in a community-based African American sample (Chapman et al., in review) *Limitations*: Extant research has found that the SIAS did not explain the variance in social anxiety among their African American sample (Hambrick et al. 2010)
Fear of Negative Evaluation Scale and Social Avoidance Distress Scale	Social phobia	*Strengths*: Relatively easy to administer Short (28 items) *Limitations*: Factor variance
Positive Affect and Negative Affect Scale	Social phobia	Strengths: Screening tool for anxiety and social phobia diagnoses in African American women. Limitations: Cannot be used solely to diagnose social phobia Does not convey severity or content of social anxiety
Social Phobia and Anxiety Inventory	Social phobia	Strengths: Differentiates between social anxiety and agoraphobia Limitations: SPAI and SPAI-23 have not been exclusively examined in African American samples
Anxiety Diagnostic Interview Schedule-IV	Panic disorder	Strength: Controls for underreporting cognitive symptoms *Limitation*: Role of cultural mistrust (Hunter and Schmidt 2010) Psychometric properties of panic section not examined exclusively in African American sample

Table 9.1 (continued)

Assessment name	Disorder assessed	Recommendations
Panic Disorder Severity Scale	Panic disorder	*Strength*: Has demonstrated convergent validity with both clinical interviews and self-report *Limitation*: Has yet to be evaluated in African American samples Due to a tendency to report somatic symptoms, African Americans may be rated inaccurately high on the scales that assess physical sensations and complaints
Agoraphobic Cognitions Questionnaire	Panic disorder/ agoraphobia	*Strength*: Assesses cognitive symptoms of panic and agoraphobia that are traditionally underreported by African American clients *Limitation*: Psychometric properties and clinical utility have not been examined in African American samples
Anxiety Sensitivity Index	Panic disorder	*Strength*: The four-factor model found by Arnau et al. (2009) was found to have strong reliability and validity in comparative sample of African American and non-Hispanic White college students *Limitation*: Anxiety Sensitivity Index-Revised (Taylor and Cox 1998) may have greater predictive validity Psychometrics have yet to be examined exclusively in African American and clinical samples
Brief Panic Disorder Screen	Panic disorder	*Limitations*: Demonstrates significantly weaker psychometric properties in African American samples compared to non-Hispanic white samples BPDS may not be appropriate in the assessment and determination of panic disorder and panic disorder with agoraphobia in African Americans
Albany Panic and Phobia Questionnaire	Panic disorder/ agoraphobia	*Strength*: May be an internally consistent measure of agoraphobia and interoceptive fears related to panic disorder in African Americans *Limitations*: Validity and clinical utility (e.g., cutoff scores) in assessment of panic disorder need to be determined in African Americans
Screen for Child Anxiety Related Emotional Disorders-Panic Subscale	Panic disorder	*Strength*: Has demonstrated sound psychometric properties in African American child samples The total subscale appears to have clinical utility in the prediction of clinical anxiety *Limitations*: The psychometric properties and clinical utility of the SCARED need to be determined specifically within the context of panic disorder in African American children
Child Anxiety Sensitivity Index	Panic disorder	*Strength*: Research has supported relationship between anxiety sensitivity and panic in African American youth Demonstrates sound psychometric properties in African American child samples Evaluates cognitive symptoms associated with panic that may be traditionally underreported in African Americans *Limitation*: Discrepant factor structures between African American and non-Hispanic White samples may indicate that the CASI does not fully capture construct of anxiety sensitivity within this population
Anxiety Diagnostic Interview Schedule-IV	Specific phobia	*Strength*: Assesses full range of symptoms of specific phobia according to DSM-IV criteria Assesses cognitive symptoms that may be underreported Has adult, parent, and child versions Limitation: Psychometric properties and clinical utility specific to specific phobia diagnosis in African Americans have yet to be examined

Table 9.1 (continued)

Assessment name	Disorder assessed	Recommendations
Fear Survey Schedule-Second Edition	Specific phobia	*Strength*: One of the few self-report measures that assesses multiple domains of fear related to specific phobia Factor structure appears to be similar between both college and community samples of African American adults *Limitation*: Psychometric properties and clinical utility within the context of specific phobia in African Americans needs to be examined
Revised Fear Survey Schedule for Children	Specific phobia	*Strength*: One of the few self-report measures that assesses broad domains of fears related to specific phobia| Has demonstrated strong psychometric properties in an African American child sample *Limitations*: The predictive validity and clinical utility in the context of specific phobia diagnoses in African American children remains unknown

mood states and general distress that pervades across life experiences.

Though extant literature suggests that African Africans (1.37 %) have a significantly lower prevalence rate of GAD than non-Hispanic Whites (4.55 %; Himle et al. 2009), there are specific cultural considerations that could explain these findings. First, examiners should remain aware of the stigma associated with mental health in the African American community (Hunter and Schmidt 2010). As such, African Americans may be reluctant to report worry symptoms due to the psychological, verbally linguistic nature of this coping attempt. Moreover, we will describe the "gold standard" assessment options for examining GAD and delineate cultural considerations when administering each assessment measure with African Americans.

GAD Assessments

Interviewer Rating Scales

Anxiety Diagnostic Interview Schedule-Version IV (ADIS-IV-Client Version; Brown et al. 1994) The ADIS-IV-Client Version is a semistructured interview for adults that examines the presence and severity of anxiety and other mental illnesses according to the criteria outlined in the *Diagnostic and Statistical Manual of Mental Disorder-4th edition* (DSM-IV; American Psychiatric Association 1994). In the assessment of GAD, the ADIS-IV-Client Version measures

the excessiveness and uncontrollability of worry across several domains (e.g., Minor Matters, Work/School, Family, Finances). Additional ratings include an assessment of the presence and severity of associated symptoms (e.g., restlessness, difficulty concentrating), the daily interference caused by worry, and the level of distress experienced due to the worries. Examiners provide a clinical severity rating (CSR), ranging from 0—"none" to 8—"severely disturbing/disabling," where a score of 4 or greater indicates meeting DSM-IV diagnostic criteria.

To date, no study has exclusively examined the psychometric properties of the GAD section of the ADIS-IV in African Americans. However, existing literature suggests that the ADIS-IV has excellent interrater reliability ($k=0.85$ and 0.90) across all anxiety disorders in an exclusively African American adult sample (Chapman et al. 2012). Overall, an inherent strength of the ADIS-IV appears to be its close adherence to the guidelines of the DSM-IV criterion while allowing the clinician to further assess symptoms of GAD that may not be captured on self-report measures. However, examiners must be mindful of the influences of racial identity, ethnicity, acculturation, and their collective impact on the endorsement of worry symptoms in African American adults (for review, see Carter et al. 1996).

Finally, the ADIS-IV-Parent and Child (Silverman and Albano 1996) are the child versions of this diagnostic interview that include additional examinations of childhood-based dis-

orders (e.g., attention-deficit/hyperactivity disorder, separation anxiety disorder) as well as more age-appropriate language. According to our review of the literature, these versions of the ADIS-IV have not been exclusively utilized to examine childhood GAD in African Americans.

Hamilton Anxiety Rating Scale (HARS; Hamilton 1959) The HARS is a 14-item scale that is designed to evaluate the severity of anxiety symptoms rather than the presence of a particular disorder (Barlow 2004); however, it is most commonly used in the assessment of GAD (Shear et al. 2001a). The HARS contains two subscales: psychic, which examines symptoms of apprehension and irritability, and somatic symptoms, which assesses autonomic arousal associated with anxiety. Previous literature supports the convergent validity of the HARS, but there is skepticism in its discriminant validity and interrater reliability (Barlow 2004). Subsequently, structural interview guides (SIG) have been created to improve the psychometric qualities of the HARS by standardizing its administration and interpretation (Bruss et al. 1994; Shear et al. 2001a). The most recently developed SIG by Shear and colleagues demonstrated slightly better interrater reliability compared to non-SIG HARS assessments within a predominantly non-Hispanic White clinical sample. According to our review of the extant literature, no study to date has examined the psychometric properties of the HARS for the assessment of worry in African Americans; however, the aforementioned considerations related to the ADIS-IV are suggested for the HARS.

Self-Report Scales

Penn State Worry Questionnaire (PSWQ; Meyer et al. 1990) The PSWQ is a 16-item measurement that assesses chronic worry on a 5-point Likert scale (1: "Not at all typical of me" and 5:"Very typical of me"). The purpose behind the PSWQ is to assess the excessiveness and intensity of worry rather than the specific content of or physical symptoms associated with the respondents worries (Barlow 2004). Based upon research supporting the temporal stability of

scores as well as the general phrasing of the items (e.g., "I worry all the time"), PSWQ is considered an assessment of the emotional trait of worry instead of a momentary state of worry (Carter et al. 2005). In terms of its psychometric properties in African Americans, Chapman, Kertz, and Woodruff-Borden (2009b) found good internal consistency (a=0.73) when using the PSWQ in an African American college sample as well as lower mean scores in comparison to non-White Hispanic students.

Notably, there have been discrepancies in the factor patterns between these groups. In particular, Carter et al. (2005) examined the factor structure of the PSWQ across ethnic groups and found that African American students were uniquely described by a three-factor structure that contained items describing General Worry (e.g., "I am always worrying about something"), Worry Absence (e.g., "I never worry about anything"), and Worry Dismissal (e.g., "If I don't have enough time to do everything, I don't worry") whereas non-Hispanic Whites only contained a two-factor solution, General Worry and Worry Absence. The main distinction between these factor structures was that the item, "I never worry about anything," loaded on the Worry Absence factor for non-Hispanic Whites and on the Worry Dismissal factor for African Americans. Despite describing discrepant factor patterns between ethnic groups, researchers propose that the common General Worry factor was a sound assessment of worry across both samples because: (1) the factor contains 11 items directly focused on the presence of excessive worry which is the hallmark feature of GAD (see Table 9.2) and (2) the factor demonstrated good convergent validity with the State Trait Anxiety Inventory (STAI; Spielberger et al. 1983), indicating the General Worry factor and the STAI are measuring different facets of the same higher-order construct (i.e., anxiety). Contrarily, the General Worry factor exhibited less than favorable discriminant validity with the Beck Depression Inventory (BDI; Beck and Steer 1987) in African American students, which highlights the overlap between the symptoms of these disorders and suggests that an additional assessment may be needed to distinguish

Table 9.2 Eleven PSWQ items comprising the "General Worry" factor that similarly described worry across samples of African American and non-Hispanic young adults. (Carter et al. 2005)

7. I am always worrying about something
13. I notice that I have been worrying about things
15. I worry all the time
5. I know I should not worry about things, but I just cannot help it
6. When I am under pressure I worry a lot
14. Once I start worrying, I cannot stop
4. Many situations make me worry
9. As soon as I finish one task, I start to worry about everything else I have to do
12. I have been a worrier all my life
2. My worries overwhelm me
16. I worry about project until they are done

GAD and depression in African Americans when using the PWSQ.

Furthermore, more recent literature proposes three additional cultural considerations when administering the PSWQ to African Americans. First, Chapman et al. (2009) found that psychological distress and perceived control predicted PSWQ scores in both samples; however there were significant differences in terms of which construct contributed most within each pathway. For African Americans, psychological distress was more characteristic of their worry than perceived control, whereas low perceived control contributed more to worry for non-Hispanic Whites. Though it is unclear whether these findings are generalizable to clinical samples, this study suggests that psychological distress is an especially salient component of worry for African Americans that should be considered when assessing GAD. Also, Rucker, West, and Roemer (2010) found that the relationship between perceived racism and PSWQ scores was accounted for by intolerance of uncertainty (or the tendency to negatively interpret information within ambiguous situations in way that leads to anxiety-provoking cognitive, emotional, and behavioral states). This finding suggests that a useful adjunct to worry assessment in African Americans is to further examine cognitions of uncontrollability and unpredictability of future events, which are endemic to both anxiety and intolerance of uncertainty. Third, Hambrick et al.

(2010) concluded that PSWQ is most effective in discriminating worry within clinical populations of African Americans and cautioned its use in samples with subclinical worry after comparing the differential item functioning of the PSWQ across African American, non-Hispanic White, and Asian American college students.

Finally, the PSWQ has a modified version that can be used in children and adolescents. The Penn State Worry Questionnaire-Children (PSWQ-C; Chorpita et al. 1997) is a 14-item self-report assessment of the tendency to worry. The respondents are prompted to rate how often they endorse certain worries on 4-point Likert scale (i.e., never, sometimes, often, and always). According our review of literature, no studies have established cultural considerations exclusively for African American youth.

Worry Domains Questionnaire (WDQ; Tallis et al. 1992) The WDQ is a 25-item assessment of the content and severity of worry across five subscales: Relationships (e.g., "that I will lose close friends"), Lack of Confidence (e.g., "that I feel insecure"), Aimless Future (e.g., "that I'll never achieve my ambitions"), Work Incompetence (e.g., "that I make mistakes at work"), and Financial (e.g., "that my money will run out"). For a comprehensive assessment of worry, Barlow (2004) suggests that the WDQ be administered in conjunction with the PSWQ to both examine the content and excessiveness of the respondent's worry. Evidence supports the WDQ's temporal stability of scores across 4 weeks, its convergent validity with peer reported worry, and its internal consistency across all five subscales (Stober 1998). In terms of cultural considerations when using the WDQ, one study compared the excessiveness (i.e., measured by PSWQ) and content (i.e., measured by WDQ) of worry across African American, non-Hispanic White, and Asian American college students (Scott et al. 2002). Although ethnic groups did not exhibit any mean differences on the PSWQ, African Americans endorsed significantly lower scores across each content subscale (except for the Financial domain) as compared to their counterparts. In particular, African Americans reported the greatest worry in

the Financial and Relationship domains whereas their lowest scores fell in the content area of Aimless Future. Researchers conclude that their findings suggest that African Americans worry less across WDQ subscales (except for financial worries), however an alternative explanation lies in whether the WDQ comprehensively examines the worry domains in African Americans. In other words, it is important to note that the WDQ, a measure that only assesses a finite number of life events, may not entirely reflect the spectrum of worries that African American respondents experience, which could account for the lower scores endorsed by this population. Given this possibility, examiners should consider that African Americans may experience excessive and/or uncontrollable worry in other culturally specific areas not captured by the five subscales of the WDQ. Additionally, Scott and colleagues found good internal consistency across each ethnic group, yet they propose that further empirical study is needed to replicate their findings in clinical samples as well as examine the validity of the WDQ cross-culturally.

Generalized Anxiety Disorder Questionnaire-IV (GAD-Q-IV; Newman et al. 2002) The GAD-Q-IV is specifically designed, unlike the PSWQ and WDQ, to examine GAD according to criteria outlined in the DSM-IV (APA 2000). Specifically, the GAD-Q-IV is a 9-item self-report measure that assesses the expression and interference of excessive worry as well as somatic symptoms associated with worry. Past literature has examined the use of two GAD-Q-IV scoring systems: (1) criterion matching, or comparing the endorsed items to DSM-IV criterion to diagnose GAD, and (2) dimensional scoring, or using a cutoff score of approximately 6 to diagnosis GAD. Luterek et al. (2002) found that both scoring methods exhibited good specificity (>90 %) in their community-based sample (17 % African American), but the criterion matching method had slightly lower sensitivity (77.4 %) than the dimensional method (>90 %). Notably, due to their control group mainly consisting of individuals without an Axis I disorder (51 out of 53), researchers still question the specificity of the dimensional

method. Aside from its clinical utility, the GAD-Q-IV has shown good reliability with structured interviews (Barlow 2004; Robinson et al. 2010). Regarding the cultural considerations for using the GAD-Q-IV, Robinson and colleagues compared its psychometric characteristics across ethnically diverse college and clinical samples. Results indicated no mean differences in addition to a consistent one-factor structure across African American, non-Hispanic White, Hispanic American, and Asian American groups. Furthermore, the GAD-Q-IV demonstrated good incremental validity by predicting more variance in PSWQ scores compared to general anxiety (i.e., BAI) and depression (i.e., BDI) measures. Additionally, divergent validity was established in both college and clinical samples as evidenced by the GAD-Q-IV maintaining a non-significant relationship with the Panic Disorder Severity Scale (PDSS; Shear et al. 1997). Based upon their findings, researchers concluded that the GAD-Q-IV "is measuring the diagnostic construct of GAD uniformly across groups." (Robinson et al. 2010, p. 258)

Social Phobia

Social anxiety is the distress experienced in social interactions where there is a fear of being negatively evaluated or that you will behave in a fashion that may cause humiliation or embarrassment. This form of anxiety is often coupled with heightened somatic arousal (e.g., increase heart rate, slowed breathing, nausea), and may become debilitating when one develops avoidance behaviors (e.g., repeatedly refusing to speak in front of groups) or one endures social situations with considerable distress. In identifying pathological social fear (i.e., social phobia), it is important to consider the degree of avoidance and distress that characterizes one's social experiences as well as how their social anxiety is impacting their daily functioning (e.g., social, occupational, academic). Extant literature has yielded mixed results when comparing the prevalence of social anxiety cross-culturally. Whereas Brown and Eaton (1986) found higher preva-

lence of social phobia in a community sample of African Americans (5.6 %) as compared to a non-Hispanic White sample (2.6 %), the National Survey of American Life and National Comorbidity Survey-Replication reported less instances of social phobia (Himle et al. 2009; Ruscio et al. 2008). Furthermore, Himle and colleagues found that the greatest risk factor for developing social phobia in African Americans was being younger than 20 years of age.

Several social anxiety assessments have been validated in academic settings and therefore their generalizability to clinical and/or community-based African American populations must be considered. However, there is evidence supporting the relevance of examining varied levels of social anxiety within school settings given the highly performance-based and rigorous evaluative dynamics in higher education. In particular, stereotype threat, a phenomenon describing awareness to an identity (e.g., race, gender) in a situation where that identity is stereotyped to perform poorly, is especially pertinent to social anxiety experiences of African Americans. Although there has not been a clear empirical explanation for the relationship between stereotype threat and social anxiety, nascent research suggests that an awareness of negative stereotypes concerning one's ethnic group is predictive of poorer performance on tests in African American students (Steele and Aronson 1995). Conceptually, the effects of stereotype threat could be generalized to other performance-based situations outside the realm of testing, where the consciousness of race-based stereotypes (e.g., African Americans are not highly educated beings) could explain certain elements of significant distress and/or situational avoidance (e.g., not wanting to speak up during meetings in front of predominantly White colleagues) in African Americans. Furthermore, perceived racism, or the suspicion that one has been discriminated against, can also uniquely impact the social anxiety of African Americans, by acting as a precipitating and/or reinforcing factor in the manifestation of socially based fears.

In this section, the "gold standard" options for examining social phobia will be discussed in addition to empirically supported cultural con-

siderations when administering each assessment option in African Americans.

Interviewer-Rating Scales

ADIS-IV As previously discussed, the ADIS-IV (Brown et al. 1994) is a commonly used diagnostic interview that allows for the differentiation of anxiety and related disorders according to the criterion set by the DSM-IV. The social phobia section of the ADIS-IV includes an array of social settings (e.g., parties, speaking with unfamiliar people) that prompts respondents to rate their degree of fear and avoidance of the endorsed items (for additional considerations, see section on ADIS-IV and GAD). Although the psychometric qualities of this section of the ADIS-IV has yet to be examined in African Americans, the ADIS-IV has demonstrated excellent interrater reliability in exclusively African American adult samples (Chapman et al. under review; Petrie 2013).

As aforementioned, given that the social phobia section of the ADIS-IV closely aligns with DSM-IV criteria, diagnoses made using this assessment should accurately reflect the presence and severity of respondent's social fears. However, a limitation of the assessment tool is that it does directly prompt for culturally based experiences with discrimination, and therefore requires the examiner to separately assess the role that these experiences may have on the respondent's social fears.

Liebowitz Social Anxiety Scale (LSAS; Liebowitz 1987) The LSAS contains 24 items that assess the severity of anxious symptoms and avoidant behaviors across various social situations. Respondents rate the severity of their fear and avoidance on a 4-point Likert scale across two subscales, social-interactional situations (i.e., 13 items) and performance situations (i.e., 11 items). There is no existing literature that describes the use of the LSAS in child populations; however it has demonstrated good psychometric properties and clinical utility in adults (Heimberg et al. 1999). Notably, a recent study utilizing the LSAS

in a community sample of African Americans found good internal consistency in total and original subscale scores as well as the temporal stability of total and subscale scores over a year (Beard et al. 2011). However, researchers found high intercorrelations between the fear and avoidance rating scales, which yielded redundant information in the African American sample. Beard et al. (2011) further examined the original and extant factor structures of the LSAS (i.e., original two subscales—Liebowitz 1987; 4 subscales—Safren et al. 1999; 5 subscales—Baker et al. 2002) and concluded that three of the four-factor structures (including the original) resulted in poor model fit, although the Safren (1999) model resulted in minimally acceptable fit. Taken together, these results suggest that further exploratory factor analyses are warranted in order to underscore the utility of the LSAS in African American samples (see Beard et al. 2011).

Self-Report Scales

Social Interaction Anxiety Scale (SIAS) and Social Phobia Scale (SPS; Mattick and Clark 1998) Both the SIAS and the SPS are 20-item assessments that utilize a 4-point Likert scale (i.e., 0—"Not at all" to 4—"Extremely") to examine anxiety-related reactions across a number of social situations (i.e., SIAS) and fears of being scrutinized by others (i.e., SPS). Evidence supports that high scores on the SIAS are related to more severe social anxiety across various social situations, whereas higher scores on the SPS are associated with a heightened focus on symptoms of somatic arousal as well as the potential consequences of these symptoms (Barlow 2004). Both measures have demonstrated good reliability and validity in past studies (Barlow 2004).

Specifically, two studies to date have examined the psychometric qualities of the SIAS and SPS exclusively in African American samples (Hambrick et al. 2010; Chapman et al. in review). Hambrick and colleagues examined the mean differences and differential item responses on the SIAS across African American, Asian American, and non-Hispanic White subjects and found that

African Americans had significantly lower total scores amongst the entire sample, with the largest discrepancy between African Americans (20.16) and Asian Americans (27.01). Also, researchers determined that item responses across the ethnic groups were disparate and, most notably, that the responses on the SIAS did not effectively differentiate African American participants with varying degrees of social interaction anxiety (Hambrick et al. 2010). Ultimately, researchers concluded that using the SIAS to compare social interaction anxiety across diverse ethnic groups must be done with caution based upon its inability to explain the variance in their African American sample. Despite these limitations, Chapman et al. (under review) found good internal consistency (SIAS a=0.92; SPS a=0.94) as well as established cut scores for identifying clinically significant social fear using the SIAS and SPS in an exclusively African American sample. The socially anxious subjects in the sample had an average SIAS score of 32.26 and SPS score of 20.39. Notably, researchers found that a SIAS score of 15 achieved 85 % sensitivity (e.g., true positives) and 82 % specificity (e.g., true negatives) within the current sample. Furthermore, an SPS of 6 attained 74 % sensitivity and 77 % of specificity.

Fear of Negative Evaluation Scale (FNES) and Social Avoidance Distress Scale (SADS) The *FNES and the SADS* were developed concurrently to assess different aspects of social phobia (Watson and Friend 1969) The FNES is a 30-item self-report assessment that examines concern about social or public scrutiny based upon "True" or "False" responses. Sample questions include "I feel very upset when I commit some social error" and "I often worry that I will say or do the wrong things." The SADS is a 28-item self-report instrument that measures the degree of discomfort in social situations and likelihood to avoid social interaction based upon "True" or "False" responses. Sample items include "I feel relaxed even in unfamiliar social situations" and "I often feel nervous or tense in casual get-togethers in which both sexes are present."

In terms of psychometric properties of these measures in African Americans, a recent inves-

tigation identified discrepant factor structures between African Americans and non-Hispanic Whites (Melka et al. 2010). Researchers found that several items on the FNES, including "I am unconcerned even if I know people are forming an unfavorable impression of me," "the opinions that important people have of me cause me little concern," "I react very little when other people disapprove of me," "I am usually confident that others will have a favorable impression of me," and "I am unconcerned even if I know people are forming an unfavorable impression of me," were not salient concerns in their African American college sample. On the SADS, the items that did not appear pertinent to African Americans were "I often find social occasions upsetting" and "I am seldom at ease in a large group of people." Although there are concerns about the generalizability of these findings to a more demographically diverse sample (e.g., community-based or clinical populations), Melka et al. (2010) concluded that items reflecting indifference to negative evaluation and degrees of comfort in large social interactions were not representative of the social anxiety in their African American sample. Most importantly, these findings reiterate the importance of utilizing culturally sensitive assessment items (Melka et al. 2010) because when the average scores were reanalyzed using the refined SAD and FNE items, African Americans were no longer significantly higher than the other sample on the SAD (but still remained lower on the FNE). Ultimately, by including items that are most descriptive of social concerns about negative evaluations (i.e., FNE) and apprehensions about social interactions (i.e., SAD) among African Americans, it improves the precision of assessing social anxiety across ethnicities.

Positive Affect and Negative Affect Scale (PANAS; Watson et al. 1988) The PANAS includes 20 items measuring dimensions of positive (i.e., 10 items) and negative affect (i.e., 10 items). Specifically, negative affectivity describes distressful mood states that are usually accompanied by anger, sadness, guilt, or disgust, whereas positive affectivity defines emotional states of happiness, high energy, and satisfaction.

Both of these concepts operate on a continuum where low negative affect characterizes calmness and serenity, and low positive affect represents sadness and lethargy (Watson et al. 1988). The PANAS employs a 5-point Likert scale, ranging from "very slightly or not at all" to "severely," to examine the respondent's level of affectivity. This assessment tool has been used to examine affectivity in the moment, over the span of a day, a few days, a week, a few weeks, a year, and generally (Watson et al. 1988). The PANAS has been shown to be reliable and valid in various samples, including non-Hispanic White college students (Watson et al. 1988).

Evidence supports an association between social anxiety and low positive affectivity that is similar to depression yet uncharacteristic of other anxiety disorders. In particular, high levels of social anxiety have been found to be associated with lower positive affect on the PANAS compared to individuals with lower levels of social anxiety (Vittengl and Holt 1998). Though this relationship has been substantiated in non-Hispanic Whites, one study examined the clinical utility of the PANAS in differentiating community-based African American female adults diagnosed with and without an anxiety disorder as well as its ability to predict those who had social phobia diagnoses. In terms of identifying an anxiety diagnosis within the sample, researchers determined that the PANAS established cutoff scores for both scales in predicting overall anxiety diagnosis (>11 on negative scale; <35 on positive scale) and social phobia diagnosis (>13 on negative scale; <34 on positive scale). Petrie et al. (2013) demonstrate that the PANAS can be used as a screening tool to establish when a further assessment of pathological anxiety and, and more specifically, social phobia is warranted in African American females. However, because this assessment tool does not directly examine the content or severity of social fears, a supplemental measure of social phobia that more closely adheres to DSM-IV criteria should be included before arriving to a social phobia diagnosis. In terms of assessing children and adolescents, a 27-item self-report assessment called the PANAS-C (Laurent et al. 1999) was developed to examine

affectivity in youth. Similar to the adult version, this child measure uses a 5-point Likert scale that prompts respondents to indicate how they have felt within last 2-week period. Despite a small sampling of African American youth, extant literature supports the link between positive affectivity (PA) and social phobia in youth as evidenced by the PA subscale of the PANAS-C significantly predicting social anxiety scores (Hughes and Kendall 2009). However, research is needed to establish cultural considerations when assessing social phobia in African American youth using the PANAS-C.

Social Phobia and Anxiety Inventory (SPAI; Turner et al. 1989) The SPAI is a 109-item assessment designed to examine physical, cognitive, and behavioral manifestations of distress across a number of anxiety-provoking situations (e.g., reading aloud, attending social gatherings) on a 7-point Likert scale. Uniquely, the SPAI includes an agoraphobia subscale, which allows for the differentiation between socially specific avoidant and generally situational avoidant respondents. However, literature has not remained consistent on the best way to utilize these subscales to accurately assess the severity of the respondent's social phobia. Suggestions include using the difference score between subscales (i.e., social phobia versus agoraphobia), solely using the social phobia subscale, or using either of the aforementioned options depending on the examiner's goal for the assessment (e.g., treatment outcome measure, general assessment of social phobia, or to distinguish symptoms across groups; for further review, see Barlow 2004). Evidence supports the psychometric quality of the SPAI as demonstrated by its greater diagnostic precision (e.g., sensitivity, specificity, and discriminability) compared to the SIAS and SPS (as cited in Schry et al. 2012). Recently, the development of an abbreviated version of the SPAI, the Social Phobia and Anxiety Inventory-23 (SPAI-23: Roberson-Nay et al. 2007), reduced the time burden placed on respondents while still maintaining a 2-factor structure despite only containing 23 of the original items. The psychometric quality of the SPAI-23 has been established by discriminating social pho-

bia from other anxiety disorders and scores are shown to be highly correlated with the full SPAI in college students (as cited by Schry et al. 2012). For further psychometric information regarding the SPAI-23, see Schry et al. 2012.

According to our review of literature, no studies have exclusively investigated the SPAI or SPAI-23 in African Americans; however several studies have utilized the Social Phobia and Anxiety Inventory-Children (SPAI-C—Beidel et al. 1995) to assess social anxiety in African American youth. The SPAI-C is a 26-item assessment that maintains a similar approach to assessing social phobia in children aged 8–17. Evidence has yielded mixed findings as to how social phobia compares between African American and non-Hispanic White youth (Beidel et al. 2000; Ferrell et al. 2004; McLaughlin et al. 2007). Notably, among these studies, McLaughlin et al. (2007) included the largest sampling of African Americans ($n = 141$) and found no differences between African Americans, non-Hispanic Whites, Hispanic Americans when considering overall total mean and scores across gender. For a more comprehensive summary of available child measures, consider the review article by Tulbure, Szentagotai, Dobrean, and David (2012). Overall, the bridge between the child and adult versions of SPAI are difficult to interpret despite both assessments including a similar operationalization of social phobia. In terms of the assessment of African American adults using the SPAI or SPAI-23, further research is needed to identify any cultural considerations when administering these tools.

Panic Disorder

Panic disorder (PD) is characterized by the experience of recurrent, unexpected panic attacks. These attacks are defined as discrete periods of intense fear in which at least four symptoms (out of 13) develop abruptly and climax within 10 min (American Psychiatric Association 2000). The symptoms of panic attack include physiological arousal, such as sweating, shortness of breath, trembling, and heart palpitations, as well as cognitive experiences, such as derealization,

fear of losing control, and fear of "going crazy." In addition to experiencing several of these panic attack symptoms, an individual with PD must demonstrate a persistent fear regarding the potential for future attacks. Research has indicated that African Americans experience similar to lower lifetime prevalence rates of PD (i.e., 1.2–3.9%) as compared to their non-Hispanic White counterparts (Breslau et al. 2006; Horwath et al. 1994). Previous work suggests that PD may be underdiagnosed in African Americans (Paradis et al. 1992).

One potential reason for these mixed findings may be the differential patterns of manifestation of PD in African Americans as compared to non-Hispanic Whites that have been consistently supported by the literature. Specifically, research has demonstrated that African Americans may be more likely to endorse the somatic symptoms of PD, such as tingling hands and feet and hot and cold flashes, and more overall symptoms (Horwath et al. 1994). Nascent studies have suggested that African Americans with a clinical diagnosis of PD may experience specific symptoms (i.e., tingling and numbing of hands and feet, fear of dying or going crazy) more intensely than their European counterparts (Friedman and Paradis 2002; Smith et al. 1999). In addition to somatic complaints, one phenomenon that has been found to be particularly salient in African Americans with PD is isolated sleep paralysis (Bell et al. 1986; Friedman and Paradis 1991, 2002; Friedman et al. 1994; Hinton et al. 2005; Otto et al. 2006; Paradis and Friedman 2005; Paradis et al. 1997). During isolated sleep paralysis, one may experience feelings of uncontrollable immobility, hallucinations, and feelings of impending danger, typically while in the process of waking or falling asleep. While the exact reason for these differences in rates of ISP remains relatively unknown, it has been hypothesized that they may be attributed to differences in levels of stress, sleep disruption, and hypertension.

Overall, the observed differential patterns of PD in African Americans may be associated with culturally specific variables and experiences. It has been hypothesized that the salience of somatic symptoms may be related to the fear of physical conditions (e.g., cardiovascular disease) and the underreporting of cognitive complaints resulting from stigma towards mental illness in African American communities (Hunter and Schmidt 2010 Carter et al. 1999; Friedman and Paradis 2002; Hunter and Schmidt 2010; Gordon and Teachman 2008; Johnson et al. 2007; Neal et al. 1994; Neal and Turner 1991). Additionally, exposure to chronic stress has been particularly implicated in PD with agoraphobia for African Americans (Barlow 1988; Carter and Barlow 1995). For example, the experience of chronic stress has been hypothesized to contribute to differences in symptom manifestation, including increased symptom severity, in African Americans. Therefore, the assessment of PD in this population must be sensitive to these cultural factors and the potential differences in symptom manifestation. In order to provide guidelines for culturally sensitive assessment of PD in African Americans, the "gold standard" assessment practices will be presented, as well as information regarding the utilization of current assessment tools with African Americans (e.g., psychometric properties) and cultural considerations in their use.

Assessment in Adult Populations

Interviewer Rating Scales

ADIS-IV Within the assessment of PD, the ADIS-IV measures the frequency, intensity, and duration of panic attacks, the antecedents to panic attacks, and avoidance behaviors associated with attacks. The ADIS-IV also assists the clinician to assess the history of the disorder, elucidate potential variations in manifestation patterns, and identify panic attacks that are un-cued, or unexpected (Brown et al. 1994). The PD section of the ADIS-IV has demonstrated sound psychometric properties. In a study examining the diagnostic reliability of the ADIS-IV in a sample of 363 individuals with anxiety disorders, interrater agreement of PD and PDA demonstrated a strong kappa ($\kappa = 0.79$; Brown et al. 2001). Additionally, the dimensional ratings regarding the frequency of panic attacks, fear of future attacks, agoraphobic avoidance, and clinical severity demonstrated

good interrater reliability (alpha = 0.58–0.83). Although the ADIS-IV demonstrated sound psychometric properties in the aforementioned study, it is important to note that the study sample was predominately non-Hispanic White (e.g., 4 % African American). In a study that examined the efficacy of cognitive-behavioral treatment of PD and PDA in African Americans and European Americans, the ADIS-IV was used to determine a PD or PDA diagnosis (Friedman et al. 2006). It was found that African American participants were given a primary diagnosis PDA (rather than PD alone) significantly more than their European American counterparts. However, whether this finding reflected a true difference or a measurement error was not investigated. With regard to reliability, the ADIS-IV has been found to demonstrate excellent interrater reliability in exclusively African American samples (Chapman et al. under review). However, the reliability of the PD and PDA scales and validity of the ADIS-IV has yet to be examined in an exclusively African American sample, and possible differences in its utility with African Americans has not been explored.

Overall, the ADIS-IV remains a "gold standard" tool in the assessment of PD and PDA due to its empirically supported psychometric properties and its thorough assessment of the diagnostic criteria of the disorder. Despite a lack of study examining the reliability and validity of the ADIS-IV within ethnically diverse samples, the interview maintains important strengths in the assessment of PD and PDA in African Americans, such as providing a structural template for examining the full range of DSM-IV criteria as well as assessing specific elements of these disorders that are often underreported in African Americans (e.g., behavioral avoidance, panic-related cognitions).

Self-Report Measures

Panic Disorder Severity Scale (PDSS; Shear et al. 1997) The PDSS is a 7-item, clinician-rated measure utilized to assess multiple domains of panic and agoraphobia over the course of the past month. Specifically, the clinician indicates the frequency of panic attacks, the level of dis-

tress associated with panic attacks, fear of future attacks, avoidance of bodily sensations associated with panic, situational avoidance, and the impairment of panic on the client's social and occupational functioning. Ratings are measured on a 5-point Likert and the scales are average to create a composite score. The PDSS has consistently demonstrated sound reliability and internal consistency across samples (Shear et al. 1997, 2001b). The PDSS has been found to have convergent validity with clinical severity ratings on the ADIS-V, the corresponding items on the ADIS-V (e.g., fear of future attacks), and other self-report questionnaires of panic symptoms (e.g., Albany Panic and Phobia Questionnaires, Panic Disorder Self-Report). In a sample of 104 psychiatric outpatient participants, the PDSS was found to have an optimal cutoff score of 8 with a sensitivity of 83.3 % (Shear et al. 2001b).

Although the PDSS has demonstrated strong psychometric properties, the aforementioned reliability and validity studies did not include the ethnicities of their samples. As such, the psychometric properties and the normative data for this measure remain unknown in African American samples. In addition, due to a tendency to report somatic symptoms, African Americans may be rated inaccurately high on the scales that assess physical sensations and complaints. Moreover, African Americans may endorse more severe symptoms of PD, which may inflate the composite score and render an inaccurate representation of the severity of overall panic. Due to these potential confounds, it is suggested that the PDSS not be used in isolation in the assessment of the presence and severity of panic and agoraphobia symptoms, and that the aforementioned cutoff scores be referenced with caution.

Agoraphobic Cognitions Questionnaire (AgCQ; Chambless et al. 1984) The AgCQ is a 14-item self-report measure that was created to assess catastrophic cognitions related to the negative implications of anxiety, or the *fear of fear.* Clients indicate the frequency with which they experience the listed thought while anxious on a 5-point Likert scale (i.e., 1 = "thought never occurs"; 5 = "thought always occurs"). The questionnaire

contains six items related to behavioral or social implications of anxiety and eight items pertaining to cognitions about physiological consequences. The AgCO has demonstrated a good internal consistency (Cronbach's alpha=0.80) and a strong test-retest reliability (0.86). Additionally, the AgCO has been found to have convergent validity with other measures of agoraphobic cognitions and interoceptive cues, as well as discriminant validity in the delineation of agoraphobics and healthy controls (Chambless et al. 1984).

Overall, while evidence has supported the psychometric properties of the AgCO, the reliability and validity of this measure have not been examined in an exclusively African American sample. In addition, the extant literature on the AgCO does not include the ethnic demographics of their samples; therefore, it is unknown whether the current findings generalize to African American populations. Despite these limitations, one potential strength of the AgCO is its assessment of symptoms that may not be provided through verbal report by African American clients. Therefore, the AgCO may be a useful measure to gather information regarding cognitive symptoms of panic and agoraphobia, yet the yielded scores should be interpreted with caution.

Anxiety Sensitivity Index (ASI; Reiss et al. 1986) The ASI was developed to assess the construct of anxiety sensitivity, or the fear of the experiences related to anxiety (e.g., cognitive, physiological, evaluative). Notably, evidence supports that anxiety sensitivity predicts the development and maintenance of panic and related disorders (Maller and Reiss 1992; Schmidt et al. 1997; Taylor and Cox 1998). The ASI assesses one's level of anxiety sensitivity with 16 items that are rated on a 5-point Likert scale (i.e., 0="very little" to 4="very much"). Ratings reflect the degree to which one typically fears specific symptoms of anxiety. With regard to psychometrics, the ASI has demonstrated excellent internal consistency (alphas=0.82–0.91) and good test-retest reliability (r=0.74). For normative data, refer to Peterson and Reiss (1992). However, the aforementioned psychometric properties and norms do not include information

on African American samples. Several studies have supported a three-factor structure of the ASI across diverse populations (e.g., outpatient, geriatric) including the factors of physical concerns, mental incapacitation concerns, and social concerns (Mohlman and Zinbarg 2000; Zinbarg et al. 1999). However, Carter et al. (1999) found that this three-factor structure did not demonstrate good fit with the data, and instead a four-factor model resulted in the best fit for a sample of 221 African American college students. This racially specific factor model included mental incapacitation, fears of unsteadiness, cardiovascular fears, and fears of losing emotional control, but aside from the mental incapacitation factor, this model did not demonstrate strong convergent validity with other anxiety measures. Furthermore, Arnau, Broman-Fulks, Green, and Berman (2009) examined the factor structures of the ASI and a revised version of the ASI (ASI-R; Taylor and Cox 1998) in a sample of African American and European American college students, and found that a separate four-factor structure (i.e., fear of respiratory symptoms, fear of publicly observable anxiety reactions, fear of cardiovascular symptoms, and fear of cognitive dyscontrol) delineated by Taylor and Cox (1998) provided the best fit across the two measures. Comparative analyses indicated that this four-factor model provided the best fit for the data within the African American sample, with the exception of one item that loaded on multiple factors (see Arnau et al. 2009). Further, an investigation of the reliability and validity of the ASI and ASI-R yielded strong internal consistencies. However, the ASI-R (Taylor and Cox 1998) demonstrated greater predictive ability as evidenced by greater correlations with both self-reported anxiety and specific diagnoses, including PD. Although the ASI-R was purported to be the optimal measure of anxiety sensitivity, the reliability and validity analyses did not include analyses specific to African Americans. As such, the psychometric findings may not generalize to exclusively African American samples.

Brief Panic Disorder Screen (BPDS; Apfeldorf et al. 1994) The BPDS is derived from the Anxiety Sensitivity Questionnaire, and includes

four items that are purported to predict the presence of or vulnerability to PD (for a review of the psychometric properties, see Apfeldorf et al. 1994). In a study aimed at the examination of the comparative reliability and validity of the BPDS in African Americans ($n=79$) and European Americans ($n=218$), Johnson et al. (2007) found significant differences in the psychometric properties between the two populations. Specifically, the BPDS demonstrated lower internal consistency in the African American sample compared to the European American sample. The internal consistency was significantly lower for African Americans in clinical (i.e., PD diagnosis) and nonclinical subsets of the sample. In addition to decreased reliability, Johnson and colleagues found that the BPDS was significantly less accurate in predicting a PD diagnosis in African Americans as compared to European Americans. Overall, these findings suggest that the BPDS may not be appropriate in the assessment and determination of PD and PDA in African Americans. Moreover, these findings paired with the discrepant factor structure of the ASI suggest that the construct of anxiety sensitivity may differ in African American populations. As such, clinicians should be mindful of using current conceptualizations and measures of anxiety sensitivity to predict panic and related outcomes in African Americans. For further review of widely used measures of interoceptive fears related to PD that have not been evaluated in African Americans, see Chambless et al. (1984), Clark et al. (1997), and Austin et al. (2006).

Albany Panic & Phobia Questionnaire (APPQ; Rapee et al. 1995) The APPQ is a 27-item self-report measure that is used to assess aspects of agoraphobia and panic, including interoceptive fears and fears associated with agoraphobic and social phobic situations. Participants indicate the degree of fear they would expect to experience if they were confronted by the event in the following week on an 8-point Likert-type scale (0="no fear" to 8="extreme fear"). The APPQ yields three subscales, including Agoraphobia, Social Phobia, and Interoceptive Fears Scales.

Research has supported the reliability and validity of the APPQ, with the measure demonstrating strong internal consistency, test-retest reliability, and construct validity (see Rapee et al. 1995). In addition, Chapman et al. (under review) found that the APPQ demonstrated high internal consistency in an exclusively African American adult sample (total $\alpha=0.86$). In a psychometric reevaluation of the APPQ, Brown, White, and Barlow (2005) confirmed the three-factor structure (i.e., agoraphobia, social phobia, and interoceptive) with all but three items loading on the indicated factor. Further, the factor scales demonstrated good internal reliability (alphas=0.85–0.89), convergent validity, and divergent validity. Although the initial validation and reevaluation of the APPQ yield strong psychometric properties, the measure has yet to be examined in an African American sample within the context of PD. The sample in Brown and colleague's study included a small proportion of African Americans (i.e., 3.5%), but the analyses employed did not investigate possible differences in the factor structure of the APPQ within this population. In addition, the clinical utility of the APPQ in the prediction of PD is warranted in African American samples. Overall, the APPQ appears to be an internally reliable measure in the assessment of panic and phobia in African Americans. While the scales of the APPQ may accurately reflect constructs related to panic and agoraphobia, optimal cut scores in the prediction of PD in African Americans have yet to be determined. Therefore, the interpretation of scale scores should be conducted in conjunction with other measures that assess the full range of diagnostic criteria of panic disorder with or without agoraphobia.

Agoraphobia

In addition to the items and subscales that assess the presence of agoraphobia and related constructs (e.g., agoraphobic cognitions) on the PDSS (Shear et al. 1997), AgCQ (Chambless et al. 1984), and APPQ (Rapee et al. 1995), several commonly used measures in the assessment

of situational avoidance include the Mobility Inventory for Agoraphobia (Chambless et al. 1985) and The Fear Questionnaire (Marks and Matthews 1979). Currently, the aforementioned measures have yet to be examined in African American samples, and will therefore not be discussed. For a review of the Mobility Inventory for Agoraphobia and the Fear Questionnaire, please see Chambless et al. (1985) and Marks and Matthews (1979). When using these measures and assessing for the presence of agoraphobia in African Americans, one should interpret the validity of scale scores with caution. Additionally, self-report measures should not be used in isolation as indicators of agoraphobia, and are best interpreted in conjunction with assessment measures and tools that assess the full range of diagnostic criteria of agoraphobia. Particular attention should also be given to ensure that agoraphobia assessment batteries include measures of symptoms that are often underreported in African American samples, such as cognitive symptoms. In terms of assessment of children, several assessment tools that measure constructs related to PD in children have been examined in African American children, including the Screen for Child Anxiety Related Emotional Disorders-Panic (SCARED-P) and Child Anxiety Sensitivity Index (CASI).

Screen for Child Anxiety Related Emotional Disorders-Panic Subscale (SCARED; Birmaher et al. 1999) The SCARED is a 41-item self-report measure used to assess various anxiety disorders in children, including panic, GAD, separation anxiety, social phobia, and school phobia. The panic subscale consists of 13 items rated on 3-point Likert scale that indicate the extent to which a child experiences symptoms of PD (e.g., "When I am frightened, it is hard to breathe.") Original psychometric analyses revealed that the SCARED demonstrates good internal consistency (coefficients = 0.74–0.89), test-retest reliability (0.70–0.90), and validity in the discrimination of clinical and nonclinical youth (Birmaher et al. 1997). Two extant studies specifically examined the reliability of the SCARED in samples of African American youth, and obtained good internal consistencies of the

panic subscale that were comparable to those of the original psychometric evaluation (0.74–0.88; Ginsburg et al. 2004; Gonzalez et al. 2012). In addition, in a sample of 64 African American youth between the ages of 14 and 19, the panic subscale demonstrated a 6-month test-retest reliability of 0.40.

Gonzalez et al. (2012) evaluated the measurement equivalence of the parent and child versions of the SCARED in a comparative sample of outpatient African American and non-Hispanic White youth and their parents. Descriptive fit indices indicated that the original five-factor model of the SCARED-C demonstrated adequate fit within the African American sample. In terms of individual factor loadings, it was found that one item (i.e., "When my child gets frightened, he/she feels like passing out") loaded more strongly on the Panic/Somatic scale for African Americans based on both parent and child reports. In addition to the factor structure of the SCARED, the study examined the concurrent criterion validity of the parent-version of the SCARED. Results indicated that the total cutoff score of 25 was a significant predictor of the presence of an anxiety disorder, with a sensitivity of 60 % and specificity of 88 % in the African American sample. However, the results failed to looked at the predictive validity of the individual subscales to their respective diagnoses. Therefore, the SCARED-P was only supported as a screener of an anxiety disorder in African American youth.

Overall, burgeoning research suggests that the SCARED (both parent and child versions) is an internally consistent, reliable measure of anxiety in African American youth. Specifically, it appears as though the panic subscale of the measure demonstrates reliability in samples of African American children. However, the validity of the panic subscale, including its ability to predict clinical levels of panic, needs to be examined in African American youth. Therefore, the SCARED is recommended as an appropriate screener for the presence of an anxiety disorder and panic symptoms in African American children.

Child Anxiety Sensitivity Index (CASI; Silverman et al. 1991) The CASI is an 18-item self-report measure that is a modified version of the Anxiety Sensitivity Index for children that is utilized to assess the extent to which one fears the symptoms associated with anxiety. The items are rated on a 3-point Likert scale (0 = "a lot" to 3 = "a lot") and represent the level of fear towards a specific symptom. The individual responses are summed to obtain a total score of anxiety sensitivity. The psychometric properties of the CASI, including internal consistency, test-retest reliability, and construct validity, have been supported in both community and clinical samples (Chorpita et al. 1998; Rabian et al. 1999; Silverman et al. 1991; Weems et al. 1998).

Recent work has also examined the psychometric properties of the CASI in exclusively African American samples. Specifically, Lambert et al. (2004) examined the reliability, validity, and factor structure of the CASI in a sample of 144 elementary-aged African American children. The results yielded comparable internal consistencies to the original psychometric evaluation (Lambert et al. 2004); however, African American children demonstrated high mean levels of anxiety sensitivity than means previously identified in non-Hispanic White youth (for means, refer to Lambert et al. 2004). Further, exploratory and confirmatory factor analyses resulted in a two-factor structure (i.e., physical concerns and mental incapacitation) that was discrepent from Previous factor structures found in non-Hispanic White samples (Silverman et al. 1999). Utilizing the two-factor subscales and total scores, the CASI demonstrated convergent validity with measures of general, physiological, and social anxiety. Moreover, divergent validity was established with scores of perfectionism, anxious coping, and depression. The validity of the CASI as it relates to PD in African American youth has also received initial support, as Ginsburg and Drake (2002) found significant correlations between the CASI and Panic Attack Questionnaire (PAQ; Norton et al. 1986).

Overall, there is initial support for the use of the CASI in the assessment of anxiety sensitivity in African American youth. In addition, burgeoning research has provided preliminary evidence for the relationship of anxiety sensitivity to PD in this population. While the CASI appears to have adequate psychometric properties in African American samples, the measure may not fully capture the nature of this construct within African American youth.

Specific Phobia

The presence of a specific phobia is characterized by an excessive fear of an explicit situation or object that is persistent in nature. Further, this fear results in the avoidance of the specified stimuli or significant distress when the phobic target is encountered (American Psychiatric Association 2000). Exposure to the phobic object results in an immediate anxiety response, which may include the experience of a panic attack. Current categorizations of this disorder delineate phobias into five subtypes, including animal, natural environment, blood-injection-injury, situational, and other (e.g., fears not captured by the aforementioned categories) fears.

The existing research suggests that African American adults experience comparable to increased rates of specific phobia compared to non-Hispanic Whites (Breslau et al. 2006; Brown et al. 1990; Last and Perrin 1993; Neal and Turner 1991; Warheit et al. 1975). Specifically, extant studies examining the presence of specific phobia in African Americans adults have found endorsement rates up to three times greater than European Americans, even when demographic variables (e.g., SES, education, geographic location) are controlled (Last and Perrin 1993; Neal and Turner 1991). Increased prevalence rates of specific phobia have also been demonstrated in African American children. For example, in a study of 162 African American and non-Hispanic White children with anxiety disorders, African American children demonstrated higher incidence rates (i.e., 26.7%) and lifetime prevalence rates (i.e., 50%) than their non-Hispanic White counterparts. One cultural factor that may contribute to these observed differences is the exposure to high stress environments. Specifically,

chronic stress may increase the experience of acute and chronic fearful states, which has been theorized to account for the elevated rates of specific phobia in this population (Carter et al. 1996; Neal and Turner 1991). In addition to variation in observed prevalence rates of specific phobia, the existing literature suggests that African Americans demonstrate differences in the content of fears. Studies examining fear content in African American adults and children have highlighted the tendency for this population to endorse more "reality-based" fears than their non-Hispanic White counterparts. For example, African American adults have been found to report more animal fears (Chapman et al. 2008, 2011, 2012; Nalven 1970) and fears associated with natural or environmental conditions (e.g., water; Chapman et al. 2008). Research suggests that African American children also endorse more specific animal fears and an overall greater number of fears than non-Hispanic White children (LaPouse and Monk 1959; Nalven 1970; Neal et al. 1993). While these differences in fear content have been observed, the studies examining these constructs have often investigated fear in a nonpathological context. Therefore, future research is needed to understand whether these differential fear patterns pervade clinical diagnoses, as well as the cultural factors that may influence their etiology and expression.

Interviewer Rating Scales

ADIS-IV Within the assessment of specific phobias, the ADIS-IV (Brown et al. 1994) obtains the severity of fear and avoidance of specific stimuli, as well as the symptomatic behaviors associated with exposure to the phobic stimuli (e.g., panic attacks, automatic anxiety response). Further, in order to determine a clinical diagnosis, the ADIS-IV assesses the functional impairment resulting from the specific phobia.

The specific phobia section of the ADIS-IV has consistently demonstrated strong psychometric properties, including good reliability. Chapman et al. (under review) found that the ADIS-IV demonstrated excellent inter-rater reliability in a sample of 65 African American adults; however, analyses did not examine reliability exclusively in the context of specific phobia. In a study examining interrater reliability of ADIS-IV diagnoses in a sample of 362 adults, the kappa for the specific phobia section was 0.86 (Brown et al. 2001). Although the ADIS-IV has been deemed a psychometrically sound measure for the assessment of specific phobia in predominately non-Hispanic White samples, its validity has not been examined in African American samples. For example, only 4 % of the sample in the Brown et al. (2001) study self-identified as African American. As such, empirical investigation is warranted to explore whether the psychometric properties of the specific phobia scale are maintained in African American populations. Overall, the ADIS-IV demonstrates strength in its assessment of a full range of symptoms and behaviors associated with specific phobia. Moreover, its semistructured nature allows for some clinician flexibility to prompt potential cultural factors that impact a client's specific phobia development, manifestation, or maintenance.

Self-Report Scales

Fear Survey Schedule-Second Edition (FSS-II; Geer 1965) The FSS-II is one of the most commonly used self-report screening measures used in the assessment of specific phobia. The measure is comprised of 51 items that assess the fear associated with common specific phobia situations, social phobia situations, phobic objects, and agoraphobia. Factor analytic studies have indicated that that FSS-II includes the factors of water, death, illness and injury, concrete objects, live organisms, violence, social interaction, and negative social evaluation (Bernstein and Allen 1969; Rubin et al. 1968). The FSS-II has demonstrated strong internal reliability ($r = 0.94$; Geer 1965) and validity; however, these analyses were conducted on predominately European American samples and may not generalize to African Americans.

Recent research has examined the factor structure of the FSS-II in both college and commu-

nity samples of African Americans. Specifically, Chapman et al. (2008) utilized confirmatory factor analysis to evaluated the factor structure of the FSS-II in both African American and European American college students. Results indicated differential factor structures and patterns of endorsed fears between the two samples. A three-factor model comprised of natural environment, animal, and social anxiety factors emerged within the African American sample. In addition, African Americans endorsed more overall fears and fears related to animals and the natural environment than their European American counterparts. Cross-validation of the FSS-II in a community sample of African Americans corroborated these differential patterns of fear endorsement (Chapman et al. 2011). In particular, the factors of animal and social fears demonstrated consistent endorsement in African American adults; however, the community sample did not endorse the same extent of natural environment fears as the college sample.

Overall, the extant research on the FSS-II suggests that African Americans may endorse different patterns of fears than European Americans, resulting in a differential factor structure of the measure. While the factor structure of this measure has been examined in both college and community samples, its psychometric properties have yet to be determined within African Americans. In addition, the FSS-II has traditionally been utilized as a measure of fear for research purposes, and its clinical utility is unknown. A subsequent version of the measure, the Fear Survey Schedule-Third Edition (FSS-III; Wolpe and Lange 1964), has been utilized as a clinical screen for phobic symptoms. However, its discriminative validity has not been supported (Klieger and Franklin 1993) and it has not been examined in African American samples.

Revised Fear Survey Schedule for Children (FSSC-R; Ollendick 1983) The FSSC-R is an 80-item self-report measure that assesses common fears in children. The items are measured on a three-point Likert scale (i.e., "none" to "a lot") to indicate the level of fearfulness of the situation or object. The FSSC-R has demonstrated strong

reliability and validity (Ollendick 1983), and has been widely used in both research and clinical populations (King et al. 1989, 1990; Ollendick et al. 1989, 1991). Factor analyses of the FSSC-R have resulted in a five-factor model, including fear of failure and criticism, fear of the unknown, fear of injury and small animals, fear of danger and death, and medical fears (Ollendick 1983; Ollendick et al. 1985). With regard to clinical utility, the FSSC-R has been found to differentiate nonclinical and school-phobic children, and has been suggested for use as a normative screen for fear sensitivities in children (Ollendick 1983).

Although the FSSC-R has demonstrated consistent reliability across studies and initial support for its clinical utility, a paucity of studies have evaluated this measure within African American populations. One extant study examined the factor structure of the FSSC-R and stability of child fear in a comparative sample of African American and non-Hispanic White children (Neal et al. 1993). Within this study, the FSSC-R demonstrated excellent internal consistency within the African American sample (cronbach's alpha = 0.96). Analysis of the stability of children's reported fears over a two-week period yielded less stability in African American children than their European American counterparts (stability coefficients = 0.71, 0.83). In addition, the FSSC-R was found to demonstrate a differential factor structure between the two samples. Specifically, a three-factor model including fear of death, danger, and small animals, fear of the unknown and things that crawl, and medical fears. Although the FSSC-R yielded discordant factor structures for African American children and European American children, there was significant overlap in the most frequently endorsed fears between these two populations.

Overall, the FSSC-R has received initial support for its reliability within African American populations. However, additional studies are needed to confirm the factor structure yielded in Neal et al. (1993) and if the FSSC-R needs to be modified to more accurately capture the content of African American children's fear. In addition, research evaluating the clinical utility of the FSSC-R in the assessment of specific phobias

in African American youth is warranted. As such, the FSSC-R may be useful in the assessment of the content of a child's fear, but not in the determination of whether this fear is pathological in nature within African American populations.

Summary and General Recommendations

The main objective of this chapter was to provide a framework for the assessment of generalized anxiety disorder, social phobia, panic disorder, and specific phobias in African Americans. This review of the extant literature highlighted the burgeoning nature of our understanding of the aforementioned disorders and their assessment. Specifically, several individual "gold standard" assessment tools reviewed have been explored in exclusively African American samples. Despite these significant strides, continued research is warranted to ensure that individual assessment tools and comprehensive evaluations fully capture the diagnostic presentation of these anxiety disorders in African Americans while being sensitive to the variation within this population. In particular, several assessment tools (e.g., ADIS-IV, SPAI, HAS, PDSS, AcCO) have yet to be validated for use in African American samples. Additionally, the replication of the psychometric properties and exploration of the clinical utility of other gold standard measures (e.g., APPQ, PSWQ, WDQ, FSSC) is warranted. Future empirical investigation is also needed to account for the heterogeneity in African Americans when assessing these disorders in this population. For example, research should examine the impact of various sociocultural variables (e.g., ethnic identity, acculturation) on the psychometric and clinical utility of "gold standard" measurement tools.

While continued empirical investigation is warranted, practitioners and researchers can take steps to ensure that they are employing culturally-sensitive assessment practices until a more thorough research base has been established. In particular, when assessing GAD, PD, and the phobias in African American samples, it is imperative for one to understand the individual's context and the sociocultural variables (e.g., ethnic identity, acculturation, socioeconomic status, education background) that may impact the manifestation and explanatory models of their anxiety (e.g., "meet the client where they're at"). In addition, the following recommendations are made to ensure "gold standard" practices that fully capture the symptom presentation of GAD, PD, and the phobias in African American individuals: (1) Avoid using any assessment tool in isolation that has yet to be validated in African American samples; (2) Examine individual item responses when scale norms have not been established or fully replicated; (3) Ensure that assessment practices are examining the full-range of diagnostic criteria, with particular care to assess for symptoms that may be traditionally underreported in African American samples (e.g., cognitive symptoms of anxiety).

References

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders—text revision* (4th ed.). Washington, DC: American Psychiatric Association.

Apfeldorf, W., Shear, M. K., Leon, A. C., & Portera, L. (1994). A brief screen for panic disorder. *Journal of Anxiety Disorders, 8,* 71–78.

Arnau, R. C., Broman-Fulks, J., Green, B., & Berman, M. (2009). The anxiety sensitivity index-revised: Confirmatory factor analyses, structural invariance in Caucasian and African American samples, and score reliability and validity. *Assessment, 16*(2), 165–180.

Austin, D. W., Richards, J. C., & Klein, B. (2006). Modification of the body sensations interpretation questionnaire (BSIQ-M): Validity and reliability. *Journal of Anxiety Disorders, 20*(2), 237–251.

Baker, S. L., Hendrichs, N., Kim, H. J., & Hofmann, S. G. (2002). The Liebowitz social anxiety scale as a self-report instrument: a preliminary psychometric analysis. *Behaviour Research and Therapy, 40,* 701–715.

Barlow, D. H. (1988). *Anxiety and its disorders: The nature and treatment of anxiety and panic*. New York: Guilford.

Barlow, D. H. (2004). Anxiety and its disorders: *The nature and treatment of anxiety and panic*. Guilford press.

Beard, C., Rodriguez, B. F., Moitra, E., Sibrava, N. J., Bjornsson, A., Weisberg, R. B., & Keller, M. B. (2011). Psychometric properties of the Liebowitz social anxiety

scale (LSAS) in a longitudinal study of African Americans with anxiety disorders. *Journal of Anxiety Disorders, 25,* 722–726.

Beck, A. T., & Steer, R. A. (1987). *Beck depression inventory manual*. San Antonio: The Psychological Corporation.

Beidel, D. C., Turner, S. M., & Morris, T. L. (1995). A new inventory to assess childhood social anxiety and phobia: The social and anxiety inventory for children. *Psychological Assessment, 7,* 73–79.

Beidel, D., Turner, S. M., Hamlin, K., & Morris, T. L. (2000). The social phobia and anxiety inventory for children (SPAI-C): External and discriminant validity. *Behavior Therapy, 31,* 75–87.

Bell, C. C., Dixie-Bell, D. D., & Thompson, B. (1986). Further studies on the prevalence of isolated sleep paralysis in Black subjects. *Journal of the National Medical Association, 78,* 649–659.

Bernstein, D. A., & Allen, G. J. (1969). Case histories and shorter communications. *Behavior Research and Therapy, 7,* 403–407.

Birmaher, B., Khetarpal, S., Brent, D., & Cully, M. (1997). The screen for child anxiety related emotional disorders (SCARED): Scale construction and psychometric characteristics. *Journal of the American Academy of Child & Adolescent Psychiatry, 36,* 545–553.

Birmaher, B., Brent, D. A., Chiappetta, L., Bridge, J., Monga, S., & Baugher, M. (1999). Psychometric properties of the screen for child anxiety related emotional disorders (SCARED): A replication study. *Journal of the American Academy of Child & Adolescent Psychiatry, 38,* 1230–1236.

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

Brown, D. R., & Eaton, W. W. (1986). *Racial differences in risk factors for phobic disorders*. Paper presented at the 114th meeting of the American Public Health Association.

Brown, D. R., Eaton, W., & Sussman, L. (1990). Racial differences in prevalence of phobic disorders. *Journal of Nervous & Mental Disease, 178*(7), 434–441.

Brown, T. A., Di Nardo, P. A., & Barlow, D. H. (1994). *Anxiety disorders interview schedule for DSM-IV*. New York: Oxford University Press.

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, 110*(1), 49–58.

Brown, T. A., White, K. S., & Barlow, D. H. (2005). A psychometric reanalysis of the Albany Panic and Phobia Questionnaire. *Behaviour Research and Therapy, 43,* 337–355.

Bruss, G. S., Gruenberg, A. M., Goldstein, R. D., & Barber, J. P. (1994). Hamilton anxiety rating scale interview guide: Joint interview and test-retest methods for interrater reliability. *Psychiatry Research, 53*(2), 191–202.

Carter, M. M., & Barlow, D. H. (1995). Learned alarms: The origins of panic. In W. O'Donohue & L. Krasner (Eds.), *Theories of behavior therapy: Exploring behavior change*. Washington, DC: APA Books.

Carter, M. M., Sbrocco, T., & Carter, C. (1996). African Americans and anxiety disorders research: Development of a testable theoretical framework. *Psychotherapy, 33*(3), 449–463.

Carter, M. M., Miller, O., Sbrocco, T., Suchday, S., & Lewis, E. L. (1999). Factor structure of the anxiety sensitivity index among African American students. *Psychological Assessment, 11,* 525–533.

Carter, M. M., Sbracco, T., Miller, O., Suchday, S., Lewis, E. L., & Freedman, R. E. K. (2005). Factor structure, reliability, and validity of the Penn State worry questionnaire: Differences between African-American and White-American college student. *Journal of Anxiety Disorders, 19,* 827–843.

Chambless, D. L., Caputo, C., Bright, P., & Gallagher, R. (1984). Assessment of fear of fear in agoraphobics: The body sensations questionnaire and the agoraphobic cognitions questionnaire. *Journal of Consulting and Clinical Psychology, 52*(6), 1090–1097.

Chambless, D. L., Caputo, G. C., Jasin, S., Gracely, E., & Williams, C. (1985). The mobility inventory for agoraphobia. *Behaviour Research and Therapy, 23*(1), 35–44.

Chapman, L. K., Petrie, J. M., & Richards, A. E. (under review). The efficacy of self-report measures in predicting social phobia in African American adults.

Chapman, L. K., Kertz, S. J., & Zurlage, M., & Woodruff-Borden, J. (2008). A confirmatory factor analysis of specific phobia domains in African American and Caucasian American young adults. *Journal of Anxiety Disorders, 22*(5), 763–771.

Chapman, L. K., Kertz, S. J., & Woodruff-Borden, J. (2009). A structural equation model analysis of perceived control and psychological distress on worry among African American and European American young adults. *Journal of Anxiety Disorders, 23,* 69–76.

Chapman, L. K., Vines, L., & Petrie, J. (2011). Fear factors: Cross validation of specific phobia domains in a community-based sample of African American adults. *Journal of Anxiety Disorders, 25*(4), 539–544.

Chapman, L. K., Petrie, J., Vines, L., & Durrett, E. (2012). The co-occurrence of anxiety disorders in African American parents and their children. *Journal of Anxiety Disorders, 26*(1), 65–70.

Chorpita, B. F., Tracey, S. A., Brown, T. A., Collica, T. J., & Barlow, D. H. (1997). Assessment of worry in children and adolescents: An adaptation of the penn state worry questionnaire. *Behavior Research and Therapy, 35,* 569–581.

Chorpita, B. F., Brown, T. A., & Barlow, D. H. (1998). Perceived control as a mediator of family environment in etiological models of childhood anxiety. *Behavior Therapy, 29,* 457–476.

Clark, D. M., Salkovskis, P. M., Ost, L. G., Breitholtz, E., Koehler, K., Westling, B. E., Jeavons A., & Gelder M. (1997). Misinterpretation of body sensations in panic disorder. *Journal of Consulting and Clinical Psychology, 65*(2), 203–213.

Ferrell, C. B., Beidel, D. C., & Turner, S. M. (2004). Assessment and treatment of socially phobic children: A cross cultural comparison. *Journal of Clinical and Adolescent Psychology, 33*(2), 260–268.

Friedman, S., & Paradis, C. (1991). African-American patients with panic disorders and agoraphobia. *Journal of Anxiety Disorders, 5,* 35–41.

Friedman, S., & Paradis, C. (2002). Panic disorder in African-Americans: Symptomatology and isolated sleep paralysis. *Culture, Medicine, and Psychiatry, 26,* 179–198.

Friedman, S., Paradis, C., & Hatch, M. (1994). Characteristics of African American and White patients with panic disorder and agoraphobia. *Hospital and Community Psychiatry, 45,* 798–803.

Friedman, S., Braunstein, J. W., & Halpern, B. (2006). Cognitive behavioral treatment of panic disorder and agoraphobia in a multiethnic urban outpatient clinic: Initial presentation and treatment outcome. *Cognitive and Behavioral Practice, 13*(4), 282–292.

Geer, J. H. (1965). The development of a scale to measure specific phobia. *Behavior Research and Therapy, 3,* 45–53.

Ginsburg, G. S., & Drake, K. L. (2002). Anxiety sensitivity and panic attack symptomatology among low-income African-American adolescents. *Journal of Anxiety Disorders, 16*(1), 83–96.

Ginsburg, G. S., Lambert, S. F., & Drake, K. L. (2004). Attributions of control, anxiety sensitivity, and panic symptoms among adolescents. *Cognitive Therapy & Research, 28*(6), 745–763.

Gonzalez, A., Weersing, V., Warnick, E., Scahill, L., & Woolston, J. (2012). Cross-ethnic measurement equivalence of the SCARED in an outpatient sample of African American and Non-Hispanic White youths and parents. *Journal of Clinical Child and Adolescent Psychology, 41*(3), 361–369.

Gordon, T. L., & Teachman, B. A. (2008). Ethnic group differences incaffective, behavioral, and cognitive markers of anxiety. *Journal of Cross-Cultural Psychology, 39,* 424–446.

Hambrick, J. P., Rodebaugh, T. L., Balsis, S., Woods, C. M., Mendez, J. L., & Heimberg, R. G. (2010). Cross-ethnic measurement equivalence of measures of depression, social anxiety, and worry. *Assessment, 17*(2), 155–171.

Hamilton, M. (1959). The assessment of anxiety states by rating. *British Journal of Medical Psychology, 32,* 50–55.

Heimberg, R. G., Horner, K. J., Juster, H. R., Safren, S. A., Brown, E. J., Schneier, F. R., et al. (1999). Psychometrics properties of the Liebowitz Social Anxiety Scale. *Psychological Medicine, 29,* 199–212.

Himle, J. A., Baser, R. E., Taylor, R. J., Campbell, R. D., & Jackson, J. S. (2009). Anxiety disorders among Afri-

can Americans, blacks of Caribbean descent, and non-Hispanic whites in the United States. *Journal of Anxiety Disorders, 23,* 578–590.

Hinton, D. E., Hufford, D. J., & Kirmayer, L. J. (2005). Culture and sleep paralysis. *Transcultural Psychiatry, 42,* 5–10.

Horwath, E., Johnson, J., & Hornig, C. D. (1994). Epidemiology of panic disorder. In S. Friedman (Ed.), *Anxiety disorders in African Americans* (pp. 53–64). New York: Springer.

Hughes, A. A., & Kendall, P. C. (2009). Psychometrics properties of the positive and negative affect scale for children (PANAS-C) in children with anxiety disorders. *Child Psychiatry and Human Development, 40*(3), 343–352.

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), 211–235.

Johnson, M. R., Hartzema, A. G., Mills, T. L., De Leon, J. M., Yang, M., Frueh, C., & Santos, A. (2007). Ethnic differences in the reliability and validity of a panic disorder screen. *Ethnicity and Health, 12,* 283–296.

King, N. J., Ollier, K., Iacuone, R., Schuster, S., Bays, K., Gullone, E., & Ollendick, T. H. (1989). Fears of children and adolescents: A cross-sectional Australian study using the Revised-Fear Survey Schedule for Children. *Child Psychology 7 Psychiatry & Allied Disciplines, 30*(5), 775–784.

King, N. J., Gullone, E., & Ollendick, T. H. (1990). Fears in children and adolescents with chronic medical conditions. *Journal of Clinical Child Psychology, 19*(20), 173–177.

Klieger, D. M., & Franklin, M. E. (1993). Validity of the Fear Survey Schedule in phobia research: A laboratory test. *Journal of Psychopathology and Behavioral Assessment, 15*(3), 207–217.

Lambert, S. F., Cooley, M. R., Campbell, K. M., Benoit, M. Z., & Standbury, R. (2004). Assessing anxiety sensitivity in inner-city African American children: Psychometric properties of the childhood anxiety sensitivity index. *Journal of Clinical Child and Adolescent Psychology, 33*(2), 248–259.

Lapouse, R., & Monk, M. A. (1959). Fears and worries in a representative sample of children. *American Journal of Orthopsychiatry, 29,* 803–818.

Last, C. G., & Perrin, S. (1993). Anxiety disorders in African-American and white children. *Journal of Abnormal Child Psychology, 21*(2), 153–164.

Laurent, J., Catanzaro, S., Joiner, T., Rudolf, K., Potter, K., & Lambert, S. (1999) A measure of positive and negative affect for children: scale development and preliminary validation. *Psychological Assessment, 11*(3), 326–338.

Liebowitz, M. R. (1987). Social phobia. *Modern Problems in Pharmacopsychiatry, 22,* 141–173.

Luterek, J. A., Turk, C. L., Heimberg, R. G., Frescro, D. M., & Mennin, D. S. (2002). *Psychometric properties of the GAD-Q-IV among individuals with clinician-*

assessed generalized anxiety disorder: An update. Paper presented at the Association for Advancement of Behavior Therapy (Reno, NV) November 2002.

Maller, R. G., & Reiss, S. (1992). Anxiety sensitivity in 1984 and panic attacks in 1987. *Journal of Anxiety Disorders, 6*(3), 241–247.

Marks, I. M., & Mathews, A. M. (1979). Brief standard self-rating for phobic patients. *Behaviour Research and Therapy, 17*(3), 263–267.

Mattick, R. P., & Clark, J. C. (1998). Development and validation of measures of social phobia scrutiny fear and social interaction anxiety. *Behaviour Research and Therapy, 36,* 455–470.

Melka, S. E., Lancaster, S. L., Adams, L. J., Howarth, E. A., & Rodriguez, B. F. (2010). Social anxiety across ethnicity: A confirmatory factor analysis of the FNE and SAD. *Journal of Anxiety Disorders, 24,* 680–685.

Meyer, T. J., Miller, M. L., Metzger, R. L., & Borkovec, T. D. (1990). Development and validation of the Penn State worry questionnaire. *Behaviour Research and Therapy, 28,* 487–495.

McLaughlin, K. A., Hilt, L. M., & Nolen-Hoekema, S. (2007). Racial/ethnic differences in internalizing and externalizing symptoms in adolescents. *Journal of Abnormal Child Psychology, 35,* 801–816.

Mohlman, J., & Zinbarg, R. E. (2000). The structure and correlates of anxiety sensitivity in older adults. *Psychological Assessment, 12*(4), 440–446.

Nalven, F. B. (1970). Manifest fears and worries of ghetto vs middle-class suburban children. *Psychological Reports, 27*(1), 285–290.

Neal, A. M., & Turner, S. M. (1991). Anxiety disorders research with African Americans: Current status. *Psychological Bulletin, 109,* 400–410.

Neal, A. M., Lilly, R. S., & Zakis, S. (1993). What are African American children afraid of. *Journal of Anxiety Disorders, 7,* 129–139.

Neal, A. M., Rich, L. N., & Smucker, W. D. (1994). The presence of panic disorder among African American hypertensives: A pilot study. *Journal of Black Psychology, 20,* 29–35.

Newman, M. G., Zuellig, A. R., Kachin, K. E., Constantino, M. J., & Cashman, L. (2002). The reliability and validity of the GAD-Q-IV: A revised self-report diagnostic measure of generalized anxiety disorder. *Behavior Therapy, 33,* 215–233.

Norton, G. R., Dorward, J., & Cox, B. J. (1986). Factors associated with panic attacks in non-clinical subjects. *Behavior Therapy, 17,* 239–252.

Ollendick, T. H. (1983). Reliability and validity of the revised fear survey schedule for children (FSSC-R). *Behaviour Research and Therapy, 21*(6), 685–692.

Ollendick, T. H., Matson, J. L., Helsel, W. J. (1985). Fears in children and adolescents: Normative data. *Behaviour Research and Therapy, 23*(4), 465–467.

Ollendick, T. H., King, N. J., & Frary, R. B. (1989). Fears in children and adolescents: Reliability and generalizability across gender, age, and nationality. *Behaviour Research & Therapy, 27*(1), 19–26.

Ollendick, T. H., Yule, W., & Ollier, K. (1991). Fears in British children and their relationship to manifest anxiety and depression. *Journal of Child Psychology and Psychiatry, 32,* 321–331.

Otto, M. W., Simon, N. M., Power, M., Hinton, D., Zalta, A. K., & Pollack, M. H. (2006). Rates of isolated sleep paralysis in outpatients with anxiety disorders. *Anxiety Disorders, 20,* 687–693.

Paradis, C. M., & Friedman, S. (2005). Sleep paralysis in African Americans with panic disorder. *Transcultural Psychiatry, 42,* 123–134.

Paradis, C. M., Friedman, S., Lazar, R. M., Grubea, J., & Kesselman, M. (1992). Use of a structured interview to diagnose anxiety disorders in a minority population. *Hospital & Community Psychiatry, 43*(1), 61–64.

Paradis, C. M., Hatch, M., & Friedman, S. (1993). Anxiety disorders in African American: An update. *Journal of the National Medical Association, 86*(8), 609–612.

Paradis, C. M., Friedman, S., & Hatch, M. J. (1997). Isolated sleep paralysis in African Americans with panic disorder. *Journal of Cultural Diversity and Mental Health, 3,* 69–76.

Petrie, J. M., Chapman, L. K., & Vines, L. M. (2013). Utility of the PANAS-X in predicting social phobia in African American females. *Journal of Black Psychology, 39*(2), 131–155.

Peterson, R. A., & Reiss, S. (1992). *Anxiety sensitivity index manual* (2nd ed.). Worthington: International Diagnostic Systems.

Rabian, B., Embry, L., & MacIntyre, D. (1999). Behavioral validation of the Childhood Anxiety Sensitivity Index in children. *Journal of Clinical Child Psychology, 28,* 105–112.

Rapee, R. M., Craske, M. G., & Barlow, D. H. (1995). Assessment instrument for panic disorder that includes fear of sensation-producing activities: The Albany Panic and Phobia Questionnaire. *Anxiety, 1,* 114–122.

Reiss, S., Peterson, R. A., Gursky, D. M., & McNally, R. J. (1986). Anxiety sensitivity, anxiety frequency, and the prediction of fearfulness. *Behaviour Research and Therapy, 24,* 1–8.

Roberson-Nay, R., Strong, D. R., Nay, W. T., Beidel, D. C., & Turner, S. M. (2007) Development of an abbreviated Social Phobia and Anxiety Inventory (SPAI) using item response theory: The SPAI-23. *Psychological Assessment, 19*(1), 133–145.

Robinson, C. M., Klenck, S. C., & Norton, P. J. (2010). Psychometric properties of the Generalized Anxiety Disorder Questionnaire for DSM-IV among four racial groups. *Cognitive Behaviour Therapy, 39*(4), 251–261.

Rubin, B. M., Katkin, E. S., & Weiss, B. W. (1968). Factor analysis of a Fear Survey Schedule. *Behavior Research and Therapy, 6*(1), 65–76.

Rucker, L. S., West, L. M., & Roemer, L. (2010). Relationships among perceived racial stress, intolerance of uncertainty, and worry in a Black sample. *Behavior Therapy, 41,* 245–253.

Ruscio, A. M., Brown, T. A., Chiu, W. T., et al. (2008). Social fears and social phobia in the United States:

Results from the National Comorbidity Survey Replication. *Psychological Medicine, 38*(1), 15–28.

Schry, A. R., Roberson-Nay, R., & White, S. W. (2012). Measuring social anxiety in college students: A comprehensive evaluation of the psychometric properties of the SPAI−23. *Psychological Assessment, 24*(4), 846–854.

Safren, S. A., Heimberg, R. G., Horner, K. J., Juster, H. R., Schneier, F. R., & Liebowitz, M. R. (1999). Factor structure of social fears: the Liebowitz Social Anxiety Scale. *Journal of Anxiety Disorders, 13,* 253–270.

Schmidt, N. B., Larew, D. R., & Jackson, R. J. (1997). The role of anxiety sensitivity in the pathogenesis of panic: Prospective evaluation of spontaneous panic attacks during acute stress. *Journal of Abnormal Psychology, 106,* 355–364.

Scott, E. L., Eng, W., & Heimberg, R. G. (2002). Ethnic differences in worry in a nonclinical population. *Depression and Anxiety, 15,* 79–82.

Shear, M. K., Brown, T. A., Barlow, D. H., Money, R., Sholomskas, D., Woods, S. W., Gorman, J., & Papp, L. (1997). Multicenter collaborative panic disorder severity scale. *American Journal of Psychiatry, 154,* 1571–1575.

Shear, M. K., Bilt, J. V., Rucci, P., Endicott, J., Lydiard, B., Otto, M. W., Pollack, M. H., et al. (2001a). Reliability and validity of a structured interview guide for the Hamilton Anxiety Rating Scale (SIGH-A). *Depression and Anxiety, 13,* 166–178.

Shear, M. K., Rucci, P., Williams, J., Frank, E., Grochocinski, V., Vander Bilt, J., Houck, P., & Wang, T. (2001b). Reliability and validity of the Panic Disorder Severity Scale: Replication and extension. *Journal of Psychiatric Research, 35,* 293–296.

Silverman, W. K., & Albano, A. M. (1996). *The anxiety disorders interview schedule for children for DSM-IV: (Child and parent versions)*. San Antonio: Psychological Corporation.

Silverman, W. K., Fleisig, W., Rabian, B., & Peterson, R. A. (1991). Childhood anxiety sensitivity index. *Journal of Clinical Child Psychology, 20,* 162–168.

Silverman, K. W., Ginsburg, G. S., & Goedhart, A. W. (1999). Factor structure of the childhood anxiety sensitivity index. *Behaviour Research and Therapy, 37,* 903–917.

Smith, L. C., Friedman, S., & Nevid, J. (1999). Clinical and sociocultural differences in African American and European American patients with panic disorder and agoraphobia. *Journal of Nervous and Mental Disease, 187,* 549–560.

Spielberger, C. D., Gorsuch, R. L., Lushene, R. E., Vagg, P. R., & Jacobs, G. A. (1983). *Manual for state-trait anxiety inventory*. Palo Alto: Consulting Psychologists Press.

Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans.

Journal of Personality and Social Psychology, 69(5), 797–811.

Stober, J. (1998). Reliability and validty of two widely-used worry questionnaires: Self-report and self-peer convergence. *Personality and Individual Differences, 24,* 887–890.

Tallis, F., Eysenck, M., & Mathews, A. (1992). A questionnaire for the measurement of nonpathological worry. *Personality and Individual Differences, 13*(2), 161–168.

Taylor, S., & Cox, B. J. (1998). An expanded Anxiety Sensitivity Index: Evidence for a hierarchic structure in a clinical sample. *Journal of Anxiety Disorders, 12,* 463–483.

Tulbure, B. T., Szentagotai, A., Dobrean, A., & David, D. (2012). Evidenced based clinical assessment of child and adolescent social phobia: A critical review of rating scales. *Child Psychiatry of Human Development, 43,* 795–820.

Turner, S. M., Beidel, D. C., Dancu, C. V., & Stanley, M. A. (1989). An empirically derived inventory to measure social fears and anxiety: The Social Phobia and Anxiety Inventory. *Psychological Assessment, 1,* 35–40.

Vittengl, J. R., & Holt, C. S. (1998). Positive and negative affect in social interaction as a function of partner familiarity, quality of communication, and social anxiety. *Journal of Social and Clinical Psychology, 17,* 196–208.

Warheit, G., Holzer, C., & Arey, S. (1975). Race and mental illness: An epidemiologic update. *Journal of Health and Social Behavior, 16,* 243–256.

Watson, D. (2005). Rethinking the mood and anxiety disorders: A quantitative hierarchical model for DSM-V. *Journal of Abnormal Psychology, 114*(4), 522–536.

Watson, D., & Friend, R. (1969). Measurement of social-evaluative anxiety. *Journal of Consulting and Clinical Psychology, 33*(4), 448–457.

Watson, D., Clark, L. A., & Carey, G. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54,* 1063–1070.

Weems, C. F., Hammond-Laurence, K., Silverman, W. K., & Ginsburg, G. S. (1998). Testing the utility of the anxiety sensitivity construct in children and adolescents referred for anxiety disorders. *Journal of Clinical Child Psychology, 27,* 69–77.

Wolpe, J., & Lang, P. J. (1964). A Fear Survey Schedule for use in behavior therapy. *Behaviour Research and Therapy, 2,* 27–30.

Zinbarg, R. E., Mohlman, J., & Hong, N. N. (1999). Dimesnions of anxiety sensitivity. In S. Taylor (Ed.), *Anxiety sensitivity: Theory, research, and treatment of the fear of anxiety* (pp. 83–114). Mahwah: Erlbaum.