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The Impact of Social Identities on the Presentation and Treatment of Social Anxiety Disorder

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THE IMPACT OF SOCIAL IDENTITIES ON THE PRESENTATION AND TREATMENT OF

SOCIAL ANXIETY DISORDER

by

SUZANNE JOHNSON

Under the Direction of Page Anderson, Ph.D.

ABSTRACT

The overall theme for this European-style dissertation is an examination of how social identities are represented in treatment studies for social anxiety disorder and how fears of confirming stereotypes about one's social identities affect social anxiety disorder in the form of stereotype confirmation concerns. In the first chapter, I introduce social anxiety disorder (SAD), describe cognitive behavioral therapy for SAD, review recruitment strategies to increase the representation of social minority groups in treatment research, discuss the importance of accurately reporting the social identities represented in samples, describe the particular relevance of stereotypes for social anxiety disorder, and provide a theoretically grounded rationale for the ways in which stereotype confirmation concerns may impact the experience and treatment of

social anxiety disorder. For the second chapter, I present a study that examines the extent to which the demographic characteristics of participants (e.g., age, gender) are reported in treatment outcome research for social anxiety disorder. The findings from this study illuminate who participates in clinical trials for social anxiety (and therefore, to whom they may apply), as well as the infrequency with which some social identities are reported. Failure to report demographic characteristics of participants treated for social anxiety disorder makes it impossible to determine the external validity of the empirical literature. It also begs the question of whether we may be failing to identify salient constructs related to the social identities of our participants that affect our understanding of the social anxiety disorder and its treatment. The third and fourth chapters present two papers on the effects of stereotype confirmation concerns on both the experience and the treatment of social anxiety disorder. The final chapter describes how the series of studies presented in this dissertation fits into research on social anxiety disorder, as well as directions for future research.

INDEX WORDS: Social anxiety, Social identities, Culture, Treatment, Reporting standards

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SUZANNE JOHNSON

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DEDICATION

Thank you to my pack of people who supported this endeavor. Also thank you to the clinic diversity committee whose conversations about identities and cultural competency enriched my graduate school training and the lens through which I view this work.

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1.1   Social Anxiety

Social anxiety disorder (SAD) is one of the most common anxiety disorders, with a lifetime prevalence rate of 12.1% (Kessler, Chin, Demler, Merikangas, &Walters, 2005), and a mean age of onset between 10 to 13 years (Rapee & Spence, 2004). Social anxiety disorder is characterized by fear of others' negative evaluation, distress during social interactions, and avoidance of social situations (DSM-IV, APA, 1994). Those with SAD suffer across many important life domains; they are less likely to get married, have fewer years of education, and have lower socioeconomic status (Schneier, Johnson, Hornig, & Liebowitz, 1992).

Fear of negative evaluation from others is a primary feature of social anxiety disorder. Social interaction anxiety is highly correlated with avoidance of social situations (Heimberg, Horner, Juster, Safren, Brown, Schneier, & Liebowitz, 1999) and high fear of negative evaluation correlates strongly with social avoidance (Watson & Friend, 1969). Challenging fears of negative evaluation has long been a target of cognitive behavior therapy for the disorder. Mattick and Peters (1988) found that changes in fear of negative evaluation predicted clinical change in avoidance of social situations; people with SAD avoided social situations less when they viewed others' judgment as less threatening. Thus, fear of negative evaluation leads to avoidance of social situations and decreasing fear of negative evaluation is a core target for treating social anxiety disorder.

1.2   Cognitive Behavioral Treatment for Social Anxiety Disorder

One method for treating social anxiety disorder is cognitive behavioral therapy. Cognitive behavioral therapy (CBT) is a structured form of psychotherapy that focuses on changing thought patterns, core beliefs, and behaviors in order to change one's emotional experience

(Beck, 2011). It is based on the theory that our interpretations of events influence how we feel and how we behave. Therefore, challenging patterns of distorted thinking is a primary mechanism of change within CBT. Newer forms of CBT encourage patients to respond to negative thoughts in new ways when engaging in a valued, or previously avoided, behavior (Dalrymple & Herbert, 2007). The primary techniques of cognitive behavioral therapy for social anxiety disorder include exposure to anxiety-provoking situations and challenging negative beliefs related to their experience of these social situations. Through exposure, the client develops a list of situations that provoke social anxiety and gradually begins to put her or himself into those situations. During exposure the client is encouraged to monitor thoughts and emotions, as well as to fully engage in each situation without using avoidance strategies to reduce anxiety (i.e. safety behaviors). The client is also taught how to challenge negative automatic thoughts by identifying how they may be distorted, questioning the validity of each thought, and developing more balanced alternative thoughts.

CBT for social anxiety disorder is well-studied and well-supported. Randomized clinical trials show that it is superior to waitlist (Stangier, Heidenreich, Peitz, Lauterbach, & Clark, 2003) and placebo conditions (Clark, Ehlers, McManus, Hackmann et al., 2003) and as effective as medication (Gould, Buckminster, Pollack, & Michael, 1997). Meta-analyses conclude that cognitive behavioral therapy (CBT) is an efficacious treatment for social anxiety disorder, with moderate to large treatment effects (Acarturk, 2009; Chambless & Hope, 1996; Fedoroff & Taylor, 2001; Rodebaugh, Haloway, & Heimberg, 2004; Taylor, 1996). The benefit of CBT for SAD is quite robust and has been generalized across a variety of modalities. Significant reductions in social anxiety symptoms have been found as a result of individual and group CBT (Wersebe, Sijbrandij, & Cuijpers, 2013), internet-based CBT (Hedman, Alaoui, Lindefors,

Andersson, Ruck, Ghaderi et al., 2014) and virtual reality exposure therapy (Anderson, Price, Edwards, Obasaju, Schmertz, Zimand, & Calamaras, 2013). Generalization of treatment effects to diverse patient populations, however, depends on the diversity of the studies' samples.

1.3   Recruiting to Achieve Diverse Samples in Treatment Research

There are some widely cited barriers to minority participation in clinical research, which include distrust of researchers, lack of information and understanding of the research, insufficient recruitment efforts by researchers, social stigma, and logistical concerns such as time, child care, and transportation (Fisher & Kalbaugh, 2011; Huang & Coker, 2010; Powell, Fleming, Walker-McGill, & Lenoir, 2008). There have also been efforts to increase ethnic minority participation in research (Powell, Fleming, Walker-McGill, & Lenoir, 2008).

In an effort to combat barriers to participation, attention has been paid to community-based recruitment strategies. Diaz (2012) describes several strategies for improving minority recruitment, including establishing trust with eligible participants, assessing the community, forming relationships with healthcare providers, and building foundations for community involvement. It has also been suggested that having a diverse group of researchers may allow for potential participants to trust that the researchers represent their best interests and understand their perspectives (Calamaro, 2008). Some researchers posit that having culturally sensitive staff who are trained to develop rapport, communicate respectfully, and have awareness of the potential participants' sociocultural context is the essential ingredient (Kerkorian, Traube, & McKay, 2007; Mason, 2005).

Researchers are also encouraged to develop long-term relationships with community members. Lindenberg et al. (2001) suggest that developing relationships with institutions and community leaders is essential to gain access to potentially difficult to reach populations. This

sentiment is echoed in the recommendation that before beginning recruitment, researchers should get to know the social context of potential participants (Diaz, 2012; Lindenberg et al., 2001). Knowledge of the community demonstrates trustworthiness to potential participants. In community-based recruitment, researchers actively engage with the community from which they are trying to recruit. Huang & Coker (2010) suggest that culturally sensitive recruiters show authentic concern for the community when recruiting and consider how their studies can impact its members' wellbeing. In addition, collaboration with the community provides an awareness of the everyday lives of its members, which can inform efficient recruitment strategies that reach people and effectively communicate the research opportunities. Not only does knowledge of a community bolster efforts to recruit, it also enhances the quality of research, providing a context from which to ask informed questions and interpret results. Rowley (1994) argued that community relationships allow for a greater understanding of the problems, thus enhancing the effectiveness of interventions.

With all of the attention paid toward lessening barriers to participation and culturally sensitive recruitment within the broader research community, one might think that treatment research for social anxiety disorder would have more diverse samples than ever before. However, the efforts to recruit for diverse samples and the ability to effectively generalize results to treatment contexts may never be felt if researchers do not provide demographic information about who participates in their published work.

1.4   Effective Generalizability Depends on Accurate Reporting: How Are We Doing?

It is impossible to evaluate the generalizability of treatment samples when the demographic characteristics of participants are not reported in the published studies. In a review of progress since the publication of the Guidelines on Multicultural Education, Training,

Research, Practice, and Organizational Changes for Psychologists (2003), the APA task force presented a goal to develop reporting practices for background characteristics (Report of APA task force on Implementation of Multicultural Guidelines, 2008; 4.3). The action steps they suggest include: "to develop reporting procedures that address background characteristics of research samples…to post desirable reporting practices on the authors' portal, the APA Web site, and other print locations where author instructions appear, and to include desirable reporting practices in the instructions to reviewers." Clearly, reporting demographic information about samples is a priority for continued multicultural research and practice.

Consistent with this priority, the APA Publications and Communications Board has a working group for Journal Article Reporting Standards (JARS). Unfortunately, their guidelines do not provide detail on what demographic characteristics to include or the minimum requirements for what background characteristics are necessary when generalizing treatment findings. So, without explicit standards how are we faring? The first study presented in this collection examined the extent to which demographic information has been reported in treatment outcome studies for social anxiety disorder.

Without knowledge of the demographic characteristics of these studies' participants, it is impossible to evaluate the external validity of the body of research on the treatment of SAD. The inability to evaluate who participates in treatment studies leads to other questions and concerns. It is possible, for example, that we may be applying a universal model based on a decidedly non-universal sample. As Sawyer, Salter, & Thoroughgood (2013) argue, "We cannot begin to investigate whether or not our basic assumptions hold true in diverse populations unless we know just how diverse or non-diverse our sample actually is (p 83)." It is possible that we are missing important social variables in our understanding of social anxiety disorder and its

treatment. Next is a discussion of one such social variable, stereotypes about one's social groups, which may influence the experience and treatment of social anxiety.

1.5   The Importance of Social Identities

The social context within which individuals see themselves, such as their group identity and social hierarchies, may have a significant impact on their level of social anxiety. One's social identities is much more than the demographic categories that are used to describe group membership, instead they refer to one's group identities and those groups' influence on one's sense of self. In fact, social identity theory (Tajfel & Turner, 1986) suggests that group identity is a key aspect of one's self-concept. Collective identity is another term that is commonly used to refer to one's personal claim of shared group membership. Ashmore, Deaux, and McLaughlin-Volpe (2004) describe seven common elements that are included in models of social identity. The first essential element is self-categorization in which an individual categorizes himself or herself as belonging to that social group, evaluates how well they fit into that social group, and their degree of certainty about their self-identification. The second element is evaluation, which refers to the attitude the individual has toward the group and their evaluation of the public's perception of their group. The third aspect of collective identity is described as the implicit and explicit importance that the individual places on their group membership. The attachment and sense of interdependence is the fourth element. Included in this is the perception of commonalities with other group members, emotional investment with the group, and the degree of interconnectedness of one's individual sense of self and the group. The fifth element is social embeddedness, how one's collective identity is engrained in their daily social relationships. Behavioral involvement is the sixth aspect and refers to the degree to which an individual's actions directly implicate the social group. Finally, the seventh component is the content and

meaning attributed to the collective identity. This includes the characteristics associated with the group that the individual identifies as self-relevant, ideology about the group, and one's narrative regarding their collective identity and the story of their group in the larger society. This model of collective identity is useful in considering the complexity of each individual's social identities, as well as how different aspects of social group identification may influence their experience and behavior.

1.5.1   *Multidimensional Model of Racial Identity*

As described above, social identities are important to an individual's sense of self. The impact of social identities has been well demonstrated in models of racial identity development. Although models of ethnic identity that apply to multiple groups have been developed (Phinney, 1993), the specificity of models of African American racial identity are of particular use for the studies of this dissertation because they explore differences between African Americans and Caucasians. The influential multidimensional model of racial identity was developed by Sellers, Smith, Shelton, Rowley, and Chavous (1998) and described the significance placed on one's race and the perception of black identity. The model proposes four dimensions of racial identity: salience, centrality, regard, and ideology. *Racial salience* refers to the degree to which an individual's race is a significant part of one's self-concept in a particular situation, which can depend on the social context. *Racial centrality* refers to the degree to which a person tends to define herself based on her race and is conceptualized as relatively stable. Racial salience can vary individually based on one's racial centrality. If an individual's racial identity is central to one's sense of self then she may be more likely to notice racial cues in the environment and her racial identity may be more likely to become salient in that situation. *Racial regard* is the third dimension of racial identity and refers to the positive and negative attitudes about being Black.

Racial regard is separated into *private regard*, one's own feelings toward African Americans and being African American, and *public regard*, one's perception of how others' view African Americans. *Racial ideology* is the fourth component of racial identity is, which is an individual's perception of how African Americans should behave. This component is further delineated into four primary ideologies: nationalist, oppressed minority, assimilation, and humanist. Racial identity, along with one's other social identities, may influence one's experience of anxiety.

Hunter and Schmidt (2010) recently developed a sociocultural model of anxiety psychopathology for Black adults. They consider how an individual's social context influences what she learns to fear and how she interprets her distress. Awareness of racism is presented as a vulnerability factor that may influence Blacks' expression of anxiety disorders. Hunter and Schmidt (2010) propose that for Blacks with social anxiety, fears related to minority status may include fears of being embarrassed or humiliated because of their racial status. The negative effect of stereotypes is one area of literature that has demonstrated how one's social group membership may affect their experience of anxiety and impair their performance.

1.6   Effects of Stereotypes

Stereotypes related to one's social identities may play a role in the experience of social anxiety. Stereotypes are generalizations about an individual based on their group membership (Judd & Park, 1993). The impact of stereotypes is often included within a broader literature on the impact of racism and discrimination; therefore, it worth noting the distinctions between these constructs. Discrimination is unfair treatment and stereotypes are overgeneralized cognitive labels, which developed within the context of systemic racism that is "rooted in a historical continuity of injustice and disparity that is linked to contemporary circumstances and systematically influences the conditions and experiences of large groups of people (Harrell,

2000)." One of the most widely researched areas on the emotional and cognitive effects of

negative stereotypes is that of stereotype threat (Pennington, Heim, Levy, & Larkin, 2016).

1.6.1   Stereotype Threat

Stereotype threat was first conceptualized as a reduction in task performance when a

stereotype about an individual's social group is made salient due to increased anxiety and

evaluation apprehension (Steele, 1997). Many studies have shown that when negative

stereotypes are made salient, they impact the performance on intelligence tests for Blacks

(Blascovich, Spencer, Quinn, & Steele, 2001; Steele & Aronson, 1995), as well as the math

performance of women (Brown & Josephs, 1999; Schmader, 2002; Spencer, Steele, & Quinn,

1999). Given the wide range of manipulations used to make stereotypes salient, such as

presenting television commercials with stereotypical roles or requiring that the individual

identify their group membership on a form, these findings provide robust support for the idea

that stereotypes influence test performance.

Further research on the stereotype threat has found that there are situational and

individual differences that moderate the effects of stereotype threat. Features of the testing

situation such as the task difficulty, test diagnosticity, and relevance of the stereotype impact the

degree of stereotype threat experienced. Stereotype threat has a stronger impact on performance

when test items are difficult (Spencer, Steele, & Quinn, 1999). Steele, Spencer, and Aronson

(2002) posit that difficult items produce greater frustration for test takers, which leads to greater

concern that they are conforming to the stereotype. In addition, they argue that difficult tests

may be more vulnerable to disruptive thoughts than simpler tasks. Test diagnosticity also

impacts the severity of stereotype threat: When a negative stereotype concerns a group's ability

in a domain that is being tested, simply describing the test as diagnostic of one's ability in that

area of study is enough of a manipulation to induce the underperformance consistent with stereotype threat (Martens, Johns, Greenberg, & Schimel, 2006; Steele & Aronson, 1995). The degree of stereotype threat can also be affected by the relevance of the stereotype to performance. When a test is described as demonstrating group differences that give credence to a stereotype, the stereotype is made relevant to test performance. Spencer et al. (1999) found that women's stereotype threat could be reduced by describing a difficult math test as not predictive of gender differences. In such cases there was equal test performance across genders. By contrast, when the same test was described as producing those gender differences, women performed significantly worse than men.

The experience of stereotype threat is also affected by individual characteristics, such as identification with the testing domain and identification with the stereotyped group (Steele et al., 2002). The effects of stereotype threat on test performance are stronger when the area of study is an important part of an individual's identity - personal investment in the given domain raises the stakes for performance. Aronson and Good (2001) found that only women who highly identified with math underperformed due to stereotype threat. The performance of women without a strong identification with math was not affected by stereotype threat. Identification with the stereotyped group, or awareness of being viewed as belonging to the stereotyped group, is also an individual characteristic that impacts stereotype threat. Those who most strongly identify with a stereotyped group experience stronger stereotype threat. Schmader (2002) found that gender identification moderated the effect of stereotype threat on performance: women who strongly identified as female showed greater underperformance than those women who were less strongly identified as female.

More recently, studies have examined mechanisms of these effects. How does stereotype threat reduce performance? Given that the experience of stereotype threat depends on various characteristics of both the individual and the situation, there are likely multiple processes by which threat affects performance (Steele et al., 2002). Performance expectation is one potential mediator, as individuals' expectations of how well they will perform are strong predictors for their actual performance (Thompson & Sekaquaptewa, 2002). When a negative stereotype becomes salient, individuals' performance expectancies are lowered and, like a self-fulfilling prophecy, individuals underperform. Results from studies examining performance expectancies as a mediator of the effects of stereotype threat are mixed. Cadinu, Maass, Frigerio, Impagliazzo, and Latinotti (2003) found that women taking a math test under stereotype threat conditions had lowered expectations of their own performance and that this partially mediated the relationship between stereotype threat and actual performance. However, other studies of the same situation, such as Spencer et al. (1999), have found null results.

An initial component of stereotype threat theory was the idea that stereotypes increases participants' concerns about conforming to the negative stereotype and doubts about their own performance (Steele, 1997). Research supports that people in stereotype threat conditions report experiencing greater negative thoughts about their performance, and these negative thoughts mediate the relationship between stereotype threat and performance (Cadinu, Maas, Rosabianca, & Kiesner, 2005). Therefore, the increase in negative thoughts is partially responsible for poorer test performance under stereotype threat. These negative thoughts utilize cognitive resources needed for the task at hand. In a similar vein, Croizet, Despres, Gauzins, Huguet, Leyen, and Meot (2009) found that those in a stereotype threat condition experienced a greater mental workload, which also mediated the relationship between stereotype threat and performance.

Their reasoning is that intrusive thoughts about confirming the negative stereotype increase mental workload, which uses working memory and attention resources and therefore hampers performance. In other words, resources that are necessary for doing well on a test are spent on worrying about stereotypes. Other studies have presented similar models and argued that participants' performance monitoring, their task-related worries, and their attempts to reduce anxiety all expend working memory resources that are necessary for optimum performance. (Johns, Inzlicht, & Schmader, 2008). For example, Beilock, Rydell, and McConnell (2007) suggest that intrusive thoughts and worries about one's performance interfere with one's working memory capacity to answer questions.

The initial hypothesis implied in Steele's (1997) view of stereotype threat was that it hampers performance by increasing anxiety and evaluation apprehension. Consistent with this view, Spencer et al. (1999) found that women under stereotype threat experienced greater anxiety than women in the control group. Osborne (2001) directly tested the role of anxiety and found that anxiety partially mediated the relationship between stereotype threat and performance for both Blacks and women. Other studies do not support anxiety as a mediator of the impact of stereotype threat on performance (Leyens, Désert, Croizet, & Darcis, 2000; Stangor, Carr, & Kiang, 1998; Stone, Lynch, Sjomeling, & Darley, 1999).   Mixed results may be due to methodological differences in the timing of measurement or to the anxiety measures employed (Marx & Staple, 2006). Studies that have used physiological and indirect markers of anxiety show more consistent results: Those under stereotype threat experience increased blood pressure (Blascovich et al., 2001) and nonverbal anxious behaviors (Marx & Staple, 2006).

Thus, stereotype threat studies provide evidence that group differences in performance may be explained by the impact of racial stereotypes. In a broader sense, research suggests that

fears of confirming negative stereotypes affect test performance, perhaps due to anxiety or negative thoughts that use cognitive resources. However, many research questions remain regarding the influence of stereotypes on psychological health. Worries about confirming a negative stereotype may exacerbate anxiety, particularly for those with social anxiety.

1.7   Stereotype Confirmation Concerns

In order to evaluate the chronic impact of stereotypes in individuals' real-world context, Contrada, Ashmore, Gary, Coups, Egeth, Sewell, Ewell, Goyal, and Chasse (2001) developed a scale measuring worries about confirming stereotypes. Like stereotype threat, stereotype confirmation concerns are applicable for all people who belong to a group that is stereotyped-- virtually everyone. The actual stereotypes that drive an individual's fear and anxiety vary widely, because for each group there are usually multiple stereotypes that people may view themselves as being at risk of perpetuating. Stereotype threat, the impact of an individual's awareness of his or her group's stereotypes, is an acute reduction in performance that is triggered by cues of the situation. By contrast, stereotype confirmation concern (SCC) is considered to be relatively enduring. Contrada et al. (2001) explains that concern about confirming stereotypes is an "experience of uncertainty and apprehension about appearing to confirm as self-characteristic a stereotype about a group to which they belong."

Although enduring, stereotype confirmation concerns are not fixed, in part because the salience of any given social identity is not fixed. Whether or not a particular social identity(s) is salient at any given time depends on the environment (Kapilashrami, Hill, & Meer, 2015). For example, an Asian woman may experience fears about confirming a negative stereotype about women when she is the only woman in a group of Asian men, whereas racial stereotypes may become more salient when she is spending time with her group of racially diverse female friends.

In addition, in either social environment she may fear confirming stereotypes that are unique to Asian women. Contrada et al.'s (2001) construct and measure of stereotype confirmation concerns evaluates the chronic impact of stereotypes in a way that flexibility allows the experience of intersecting social identities.

1.7.1 *Stereotype Confirmation Concerns: Taking an Intersectionality Perspective on the Experience of Stereotypes*

The construct of stereotype confirmation concerns is useful for capturing individuals' experiences of their multiple social identities because it allows for an intersectionality perspective. Intersectionality is the concept that social identities depend on one another for meaning and are most often experienced simultaneously (Combahee River Collective, 1977; Crenshaw, 1989). Intersectionality acknowledges the reality of diversity within social categories. Cole (2009) discusses how the principles of intersectionality of identities, developed by feminists and critical race theorists, can be applied to psychological research. She suggests that there is a limit to the ecological validity of measuring a participant's experience of a singular social identity,

> …social categories, such as race and gender, are confounded in individuals; this means that any survey question that asks participants to report whether their experiences were a function of one category membership rather than another may be eliciting flawed data (Cole, 2009; p.177).

Cole argues that the use of intersectionality in psychological research is not contingent on any one type of analysis but represents a shift in the conceptualization of social categories. Admittedly, this perspective may present methodological difficulties within psychological research, in that examining potential intersections of all social identities through statistical

interaction within each study is largely impractical and difficult to interpret. Further, intersectionality itself is a construct that has led to much debate and discussion, in part because it does not proscribe a methodology or analysis. Davis (2008), however, contends that the ambiguity within the concept of intersectionality is what has made it a successful idea - because it encourages scholars to engage critically with their own assumptions.

Consistent with the concept of intersectionality, Contrada et al.'s (2001) measure of stereotype confirmation concerns allows respondents to consider any (and multiple) social identities that they may find salient when answering each question. For example, a person's response to one item may refer to his fears of confirming a stereotype about black men and his response to another item may refer to fears of confirming a stereotype about homosexuals. Thus, the measure of stereotype confirmation concerns does not quantify fears of confirming stereotypes of any particular social identity or combination of social identities; rather, the measure captures a wider picture of individuals' experience of stereotypes about their many intersecting social identities.

It is its ability to apply to multiple social identities and the intersectionality of identities that makes stereotype confirmation concerns, and specifically this measure of it, particularly interesting. The measure has the flexibility to apply to individuals who carry multiple minority identities and therefore may experience stereotypes specific to their intersection (e.g. Black woman) and/or experience multiplicative effects (e.g. double discrimination). In addition, stereotype confirmation concern applies to individuals who identify with one or more privileged groups. Therefore, it allows for the investigation of a process that can apply to all individuals with social anxiety disorder, rather than a subgroup (i.e. women with SAD or African Americans with SAD).

1.7.2   The Current Model of Social Anxiety

Next, is a presentation of how each step of the current model may be modified to include the consideration of social identities, both internal (the social groups with which the socially anxious individual identifies) and external (the social groups represented in the environment). Rapee and Heimberg (1997) developed an influential cognitive-behavioral model of social anxiety that addresses the generation and maintenance of anxiety in social situations. The model begins with the assertion that socially anxious individuals experience fear because they assume others are innately critical and because they believe that the opinions of others are important. The original, as well as the updated model in 2010 (Heimberg, Brozovich, & Rapee, 2010) gives a detailed account of the experience of socially anxious individuals in social situations. High levels of fear of negative evaluation from others make social situations aversive and are associated with avoidance of social situations. When social situations are encountered, individuals with social anxiety perceive others as critical, hold a negatively distorted view of themselves, believe that their social performance falls short of others' high standards, estimate that negative evaluation from others is likely and leads to disastrous consequences, and experience somatic, behavioral, and cognitive symptoms of anxiety.

Whereas this model provides an excellent framework from which to approach the experience of social anxiety, it discusses social fears from a purely individualistic perspective. It may be important for the understanding of social anxiety to consider how one's social identity impacts social anxiety.

1.8   Incorporating Social Identities into the Current Model of Social Anxiety Disorder

1.8.1   Step 1: Perceived Audience

The first step in Rapee and Heimberg's (1997) original model, as well as in the recently updated version (Heimberg, Brozovich, & Rapee, 2010), is the individual's perception of the audience. The term audience refers to any social situation where observation and judgment are possible. In this context, a person sitting across the subway and an auditorium full of people are both considered a social audience. Features of the audience impact the level of anxiety experienced; for example, more formal situations are associated with greater anxiety (Rapee & Heimberg, 1997).

1.8.1.1   Additions to Step1

The features of the audience--their race, gender, and other defining characteristics—may also influence the socially anxious individual's perception that the audience will be critical. Research on meta-stereotypes (individuals' perceptions of others' stereotypes about their own social group) finds that Blacks believe Whites endorse negative racial stereotypes about their group and view them as violent, unintelligent, and lazy (Sigelman & Tuch, 1997). Studies have found that meta-stereotypes affect one's expectations about an interaction with someone of another social group. Vorauer et al. (1998) found that the stronger the perception that the stronger the meta-stereotype, the more negatively the anticipated interaction was viewed. In addition, Koudenburg and Gordijn (2011) found that the impact of the meta-stereotype on one's planned behavior for an interaction depended on the context, such that meta-stereotypes that women hold about how men perceive women led to more meta-stereotypical behavior in a date context but not in a work context. Therefore, meta-stereotypes and the situation in which they occur may affect one's perception of the audience and their planned behaviors. If an individual

holds meta-stereotypes, they may perceive the audience as holding stereotypes about their social groups.

1.8.2 *Step 2: Mental Representation of the Self as Seen by the Audience*

Once socially anxious individuals see the audience, they develop an image of how they are seen by others, "seeing oneself as through the eyes of the audience." This image is not how these individuals normally see themselves; it is often negatively distorted. In anticipation of social interactions, people with SAD have more negative self-evaluative thoughts than non-anxious people or those with other anxiety disorders (Stopa & Clark, 1993). Those with SAD are self-critical when they believe they will have to interact socially; they become their own worst judges. For example, prior to a social threat, highly socially anxious individuals recalled fewer positive self-referent words than those with low social anxiety; when there was no threat of social performance, there was no difference between groups (Mansell & Clark, 1999). The belief that socially anxious individuals have of how they are seen is continuously modified as the social situation progresses and is influenced by these self-critical thoughts. The belief is also affected by internal cues of anxiety (*I feel like I'm blushing-- I must look red to them.*) and external cues of audience evaluation, with greater attention paid to negative cues (*An audience member yawned!*). (Roth, Antony, & Swinson, 2001; Sposari & Rapee, 2007)

In their updated model, Heimberg, Brozovich, and Rapee (2010) expand on their conception of "the mental representation of the self as seen by the audience," to include research on the impact of negative imagery for those with social anxiety. Socially anxious people have more frequent mental images than those without social anxiety; such images are more negative, distorted, and from an observer perspective (as opposed to a field perspective) (Hackman, Surawy, & Clark, 1998). Taking the observer perspective may act to increase self-criticism, as

though watching a distorted version of oneself on television. In other studies, taking the observer perspective is associated with more negative self-evaluation and thoughts, and also with more physical symptoms of anxiety (Spurr & Stopa, 2003). Thus, images of the self from the observer's point of view have a strong impact on the experience of anxiety among SAD individuals.

Hackman, Clark, and, McManus (2000) have reported that the spontaneously-occurring images experienced by those with SAD are recurrent, with many of the same images replayed during each new stressful social situation. They found that these images were often derived from past events occurring during the time their social anxiety became severe and impairing. Additionally, they found that negative features of these events were not diminished by subsequent positive social events.

1.8.2.1   Additions to Step 2

The negative, distorted image of oneself that is characteristic of socially anxious individuals may be impacted by the stereotypes about their group. An individual with social anxiety may believe that the audience endorses negative stereotypes about her group. Therefore, her image of herself as seen by the audience is representative of those stereotypes. For example, a woman may worry about appearing too flirtatious in a mostly male workplace, as such her image of herself may include body language and physical characteristics that she believes others might interpret as flirtatious, such as smiling, nodding, leaning forward, and the length of her skirt. Although her attire is in reality a fixed length, her mental image of how it is seen by the audience may depend on her evaluation of their perception, which could be distorted no matter how long the skirt is in actuality. Similarly, she may lean forward to pick up a notebook but hold

in her mind a picture of herself completing this action that appears flirtatious, in the way that she assumes the men are interpreting this gesture.

1.8.3   Step 3: Comparison of Image of Self with Expected Standards of the Audience

Those with social anxiety usually believe that others have very high standards for their performance (Alden, Bieling, & Wallace, 1994). They also underestimate their social performance and social skills (Stopa & Clark, 1993). The greater the difference between others' standards and one's perceived skills, the greater the anxiety experienced. As the image of oneself changes with internal and external feedback, so does the estimation of one's failure to meet expectations—and hence anxiety fluctuates during social situations.

1.8.3.1   Additions to Step 3

One's social identities may influence their evaluation of the audience's standards for their performance. Case studies of social anxiety treatment support this assertion. Fink, Turner, & Beidel (1996) describe the treatment of a Black female with social anxiety. She was a physician and experienced great distress in social environments at work. Initial exposures were ineffective until the race of the audience was addressed. Almost all of her colleagues were white men. Once the exposure incorporated the racial composition of her perceived audience and her race-related worries were addressed, treatment for her social anxiety was much more effective. Similarly, Johnson (2006) discussed performance anxiety among Black college students and argued that the expectation of being judged based on negative stereotypes is a prominent fear. The author presents a case study of a female, Black student with social anxiety; racism was treated as a causal factor in her social anxiety. She felt pressure to perform perfectly in order to counter negative stereotypes about the intelligence of her racial group. Through the course of treatment they identified race-related triggers of her social anxiety. This suggests that individuals

may perceive the audience's standards as relatively low due to negative stereotypes about their social groups that they expect audience members to hold. However, they may estimate that they need to perform perfectly in order to disprove the negative stereotypes. Therefore, their estimation of the standards for their performance are extremely high, even though their perception of the audiences' standards may be low.

1.8.4 Step 4: Estimation of the Likelihood and Consequences of Negative Evaluation

When there is a great difference between one's imagined performance and one's perception of others' standards, critical evaluation from others is expected. People with SAD overestimate the probability that they will be evaluated negatively and that negative social events will occur (Stopa & Clark, 1993). Fear of being judged is a primary component of social anxiety. Socially anxious individuals experience greater fear of negative evaluation and social avoidance than those with other anxiety disorders (Oei, Kenna, & Evans, 1991; Stopa & Clark, 1993).

The fear of others' critical judgments in social situations is a core feature of social anxiety disorder and is motivation for social avoidance. Social interaction anxiety is highly correlated with avoidance of social situations (Heimberg, Horner, Juster, Safren, Brown, Schneier, and Liebowitz, 1999) and high fear of negative evaluation correlates strongly with social anxiety and avoidance (Jones, Briggs, & Smith, 1986). Challenging fears of negative evaluation has long been a target of cognitive behavior therapy for the disorder. Mattick and Peters (1988) found that changes in fear of negative evaluation predicted clinical change in avoidance of social situations; people with SAD avoided social situations less when they viewed others' judgment as less threatening. Thus, fear of negative evaluation leads to avoidance of social situations.

1.8.4.1   Additions to Step 4

Estimation of likelihood: Research on meta-stereotypes, presented above, also indicates that meta-stereotypes may affect one's estimation of an interaction going poorly (Finchilescu, 2005). Therefore, if a socially anxious individual endorses metastereotypes about how other groups perceive her social groups, she may expect judgment from them. The belief that the audience endorses stereotypes, along with the stereotyped image of themselves as seen by the audience, may increase the socially anxious person's estimate of the likelihood of a negative evaluation. Thus, a prominent feature of social anxiety, fear of negative evaluation and its consequences, may be exaggerated by a fear of confirming negative stereotypes.

Estimation of cost: She may fear acting in a way that will confirm those negative stereotypes, because it may lead to personal judgment or rejection. In addition, an inherent aspect of stereotype confirmation concerns is the fear that she may perpetuate negative stereotypes about her social group. Fears of confirming a negative stereotype about one's social group represent not only a fear of negative evaluation about her how she is being evaluated, but how her behavior may be judged as a reflection of her social group.

1.9   The Potential Impact of Stereotype Confirmation Concerns

In summary, awareness of stereotypes may impact the experience of social anxiety at various stages in Heimberg, Brozovich, and Rapee's model (2010). The socially anxious individual may perceive the audience as biased, view the audience's perception of them as stereotypical, and estimate that the likelihood of negative evaluation is high based, in part, on negative stereotypes. The second and third studies evaluate whether or not stereotype confirmation concerns affect the experience (study 2) and the treatment (study 3) of social anxiety disorder. Stereotype confirmation concerns, by definition, are related to a core feature of

social anxiety disorder--fear of negative evaluation, but that relation has never been evaluated empirically. In addition, fears of confirming negative stereotypes about ones social groups may increase the likelihood of discontinuing treatment prematurely. Estimates of dropout rates across several studies using group-based therapy suggest a 26% dropout rate (Herbert, et al., 2005; Hofmann & Suvak, 2006; Stangier, et al., 2003). However, attrition from social anxiety treatment studies is not well understood (Eskildsen, Hougaard, & Rosenberg, 2010). Some studies have found that some demographic variables (i.e. gender, age) predict dropout (Herbert, Gaudiano, Rheingold, Myers, Dalrymple, & Nolan, 2005; McEvoy, 2007). These findings provide information on who may be more likely to dropout but they do not evaluate why there is greater attrition among each group. Investigations of attrition from social anxiety treatment may benefit from addressing the experience of social identities, rather than the demographic categories. Stereotype confirmation concerns may be one aspect of how individuals experience membership in their social groups that affects attrition. A person with high stereotype confirmation concerns may be more fearful of negative evaluation and more likely to drop out of therapy for fear of confirming therapists' (or group members') stereotypes about his social groups. No studies to date have examined these associations.

What follows is a presentation of the three published articles representing my program of research, which has sought to better understand the impact of social identities on social anxiety disorder. The first article evaluates the extent to which researchers report demographic characteristics of participants in treatment outcome studies for social anxiety disorder, and the second and third articles show the way in which stereotype confirmation concerns impact fear of negative evaluation and attrition from treatment among those with social anxiety disorder, respectively.

2   FIRST ARTICLE

2.1   Abstract

Background and Objectives: This study examined the extent to which social anxiety treatment studies report the demographic characteristics of their participants. One hundred and fifty six treatment studies published in English between 2001-2012 articles were collected. Methods: Each study was evaluated on whether or not it reported information on gender, age, race, relationship status, education, socioeconomic status, sexual orientation, and disability and also the extent to which the racial composition of the sample was described. Results: The majority of studies reported information on age (96.2%) and gender (94.2%), but the percentage of studies that reported anything else is much lower: race (50.0%), education (42.3%), relationship status (37.8%), socioeconomic status (5.1%), disability (2.6%), and sexual orientation (1.3%). One third (34.0%) of studies reported the race of all participants in their samples, while the remaining reported no information or information for only a subset of participants (e.g., "mostly white"). Conclusions: Participants of social anxiety disorder treatment studies generally are not described beyond their age and gender. Standards for reporting participant characteristics of treatment studies (similar to standards for reporting the methodology of treatment studies) could improve clinical researchers' and clinicians' ability to evaluate the external validity of this body of work.

Keywords: reporting standards; demographics; social anxiety treatment; external validity; generalizability

2.2   Introduction

Internal validity and external validity are two cornerstones on which the scientific merit of empirical research are evaluated. Internal validity is the degree to which a study accurately measures the intended constructs and their relationships to one another. External validity is the degree to which a study design can be generalized to the intended populations and settings (Campbell & Stanley, 1967; Mook, 1983). The importance of providing information to evaluate the internal and external validity of empirical research published in peer-reviewed journals was recognized early on by psychology. The first edition of the APA's publication manual (APA, 1952) stated that the methods of studies should be "described in enough detail to permit the reader to repeat the experiment." Reporting standards have been developed to allow for the synthesis of information (e.g. metaanalysis, replication) and for evidence-based application such as CONSORT (Consolidated Standards of Reporting Trials; Altman et al., 2001; Moher et al., 2001) and TREND (Transparent Reporting of Evaluations with Non-experimental Designs (Des Jarlais, Lyles, Crepaz, & the TREND Group, 2004) for experimental and quasi-experimental designs, respectively. Although these guidelines provide a framework for reporting how a trial was designed, analyzed, and interpreted and for displaying the progress of all participants through a trial, they do not specify how authors should describe their samples.

The APA Publications and Communications Board's Working Group on Journal Article Reporting Standards (JARS) group (2008) recommends that authors report the "eligibility and exclusion criteria used (including any restrictions based on demographic characteristics) and "major demographic characteristics" of participants. They do not, however, define "major demographic characteristics" or detail the extent to which participant characteristics should be

reported. Therefore, what constitutes a "major demographic characteristic" (age, gender, etc.) may differ by author or editor, resulting in a great deal of variability in what is reported.

To evaluate the external validity of a study, we must know who participated in the research. This is particularly salient for treatment outcome studies, as evidence-based practitioners need information about the characteristics of participants in research studies to evaluate the extent to which the results of a study may (or may not) be relevant for a particular person, couple, or group. Neal and Turner (1991), for example, reported very low rates of participation among African Americans in research testing treatments for anxiety disorders. Since Neal & Turner (1991), there has been much effort to increase participation in research by ethnic minorities and other underrepresented and/or marginalized groups. APA developed Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Changes for Psychologists (2003) that support external validity, such as encouraging the use of diverse samples in research. The guides explicitly state that research with predominantly White and middle class samples can negatively affect the external validity of treatment studies, and findings may be inappropriately generalized. In addition, there are programs and funding sources geared toward increasing the participation of historically underrepresented groups in research. For example, the National Institutes of Health (NIH) 1993 Revitalization Act, legislatively mandated programs to increase the recruitment of underrepresented minorities to conduct research, such as the T34 Minority Access to Research Careers (MARC) and the Career Opportunities in Research Program (COR). The NIH Policy to enhance diversity also added a requirement for awards (NSRA) and grant (T32, T35, K12, CTSA, and R25) applications to include a Recruitment and Retention Plan to Enhance Diversity. Finally, the National Medical

Association has a project devoted to increasing the number of social minorities in clinical trials, Increase Minority Participation and Awareness of Clinical Trials (IMPACT).

There has also been increased attention placed on disseminating treatment research (Osterling & Austin, 2008). For example, in order to outline ways to improve dissemination and translate research into practice, the RE-AIM framework was developed (Glasglow, Klesges, Dzewaltowski, Estabrooks, & Vogt, 2005). The first step of these guidelines addresses how to reach your intended target population. However, in order to translate social anxiety disorder treatment research into practice, one must evaluate the generalizability of the treatment studies. To do so, researchers and clinicians must have enough information about the study's sample. As Glasgow and Emmons (2007) put it: "If health researchers can develop and evaluate programs with greater attention to context and external validity …it will be much easier for local practitioners and policymakers to judge program relevance... This is only one of many strategies needed to increase translation of evidence-based interventions, but it is a critical component and excellent starting point." (p.427).

The purpose of the current study is to evaluate the external validity of social anxiety disorder treatment studies published between 2001-2012. Given the programs and policies to increase the diversity of research samples by the APA the review considered research published from 2001-2012 and listed in PSYC Info. The current study extends Neal & Turner's (1991) review because we examine the extent to which a variety of demographic characteristics, not only race, but also gender, age, relationship status, education, sexual orientation, and disability are reported. We focus on social anxiety disorder because in Neal and Turner's (1991) review, the modal number of African Americans participating in treatment research on this disorder was 0, providing a clear benchmark against which to measure improvement. We hypothesize that the

modal number of African Americans participants in social anxiety disorder treatment outcome studies published between 2001-2012 will be greater than 0.

2.3   Methods

2.3.1   Article Collection

The Psycinfo database was searched, by two independent doctoral students, using the following search terms: social anxiety & treatment. The following inclusion criteria were used to identify studies: published in peer-reviewed journal, treatment study for social anxiety disorder, published in English between 2001-2012. We elected to make inclusion criteria as broad as possible, and so we did not restrict our sample (e.g., to include only studies with participants which clinician rated social anxiety disorder, or only those that used a randomized clinical trial methodology). Studies were only excluded if they were not treatment studies, if they were not treating those with social anxiety disorder, and if they were not published in English, in a peer-reviewed journal, between 2001-2012.

2.3.2   Coding

The articles were coded by two doctoral students in clinical psychology and one post-baccalaureate student who were trained in the coding procedures. The training included a thorough description of each variable, reading an article and then watching one of the primary coders code it, and then coding an article with the evaluation of a primary coder. Coders evaluated the extent to which the study reported information on gender, age, race, relationship status, education, sexual orientation, and disability. In evaluating the reporting of race, the coders evaluated if the article included any information about race (e.g. mostly White) and if the article included information on the full composition of the sample (e.g. 20% White, 30% Asian, 50%

Black). The coders also recorded the percentages of African Americans in the sample when the articles included such information. For each demographic characteristic, listed above the coders recorded 1) whether the article included any information regarding the demographic characteristic (i.e. yes/no) and 2) if so, they reported the information that was provided in the article (i.e. for gender: % female).

In order to ensure that authors' reporting on the demographic characteristics of their sample is not simply dependent on the methodological quality of their studies, the studies were also evaluated on their methodological quality. The articles were coded on their methodological quality using the 22-item Psychotherapy Outcome Study Methodology Rating Form (Ost, 2008). This rating form was chosen because it is applicable to a wide variety of treatment studies and was created in order to evaluate studies on the principles of empirically supported treatments.

2.3.3   Measures

The Psychotherapy Outcome Study Methodology Rating Form (Ost, 2008) contains 22 items: clarity of sample description, severity/chronicity of the disorder, representativeness of the sample, reliability of the diagnosis in question, specificity of outcome measures, reliability and validity of outcome measures, use of blind evaluators, assessor training, assignment to treatment, design, power analysis, assessment points, use of replicable treatment programs, number of therapists, therapist training/experience, checks for treatment adherence, checks for therapist competence, control of concomitant treatments, handling of attrition, statistical analyses and presentation of results, clinical significance, and equality of therapy hours (for non-WLC designs only). The items are evaluated on a 0-2 scale. Each item includes item-specific descriptions for each anchor. The measure demonstrates good internal consistency, Cronbach's $\alpha = 0.86$ (Ost, 2008). Items 1 & 3 evaluate the sample description and the representativeness of the sample;

therefore, they were omitted from the current analysis because they are redundant to the primary aim this review. In addition, for some of the studies included (i.e. computer administered CBT for social anxiety disorder) items related to therapist training and checks for competence were not relevant (items 14-17). Therefore, they were omitted from calculation of the average quality rating for those articles.

2.3.4 *Data analytic plan*

Frequencies were calculated to determine the percentage of the 156 treatment articles that included any information on participants' age, gender, race, education, relationship status, socioeconomic status, disability, and sexual orientation. In order to consider the quality of the wide variety of studies included this review, the articles were also coded on whether or not participants were randomly assigned to treatment conditions and whether or not they described a method for diagnosing social anxiety disorder. Two independent doctoral students in clinical psychology collected 156 articles and any redundant articles were deleted. A table of the studies included is available in the supplemental file (Appendix A) and the studies included are denoted with asterisks in the references section.

A series of t-tests determined if there were statistically significant differences in studies' average methodological quality scores between those studies that did and did not include information on age, gender, education, income, sexual orientation, disability, any information on race, and full racial composition of sample. The frequency of reporting on each demographic characteristic, the average percentage of African Americans, and the modal percentage for the subset of articles that reported the race of all participants were calculated using SPSS.

2.4   Results

Consistent with recommendations provided by Lombard, Snyder-Duch, and Bracken

(2002) to evaluate the inter-rater reliability of our coders, 156 articles, 28 (17.9%) were double-

coded. The reliability sample is a subset of the full sample; articles were randomly selected to be

double-coded. Cohen's kappa indicates that coders reliability ranged from moderate (k = .426,

SE = .234, p < .05) to excellent (k = .90, SE = .10, p < .05), with perfect agreement on the

articles' reports of participants' sexual orientations.

In order to ensure that the reporting practices detailed in this study are not merely an

artifact of the general methodological quality of the studies, a series of t-tests evaluated whether

articles that reported information on age, gender, education, income, sexual orientation,

disability, any information on race, and full racial composition of sample were of higher

methodological quality. There were no differences found in the methodological quality of studies

between studies that reported or did not report on participants' age $t(154)$ = -1.31, p = .19, gender

$t(154)$ = -0.80, p = .43, education $t(154)$ = 0.91, p = .36, relationship status $t(154)$ = 0.62, p = .53,

any racial information $t(154)$ = -1.90, p = .06, complete racial information $t(154)$ = -1.58, p =

.12, and socioeconomic status $t(9.86)$ = -0.81, p = .44 than studies of lower quality. There was a

significant difference in the methodological quality of studies between studies that reported on

the disability of their participants $t(154)$ = -2.39, p = .02, such that the four articles in which

authors reported participant disability were of higher quality (M = 1.45, SD = 0.28) than the 152

that did not report on their participant disability (M = 0.97, SD = 0.31). There was also a

significant difference in the methodological quality of studies between studies that reported on

the sexuality of their participants $t(154)$ = 2.55, p = .01, such that the two articles in which

authors reported participant sexuality were of lower quality (M = 0.42, SD = 0.15) than the 154

that did not report on participant sexuality ($M = 0.98$, $SD = 0.31$). However, given the very small number of articles that reported on disability ($n = 4$) and sexuality ($n = 2$), these statistically significant differences should be interpreted cautiously. These findings suggest that it is not simply the less methodologically rigorous studies that are failing to provide this information on the demographic characteristics of their samples.

From 156 articles, the percentage reporting information about demographic characteristics is as follows: age (96.2%), gender (94.2%), race (50%), education (42.3%), relationship status (37.8%), socioeconomic status (5.1%), disability (2.6%), and sexual orientation (1.3%) [Figure 1 near here].

To determine the extent to which the modal number of African Americans participating in a study has increased since Neal and Turner's (1991) review, treatment studies must report the racial composition of the entire sample. It is, for example, impossible to determine the modal number of African American participants if the study reports that it consisted of "mostly white" participants. One third of articles (n=53, 34.0%) identified the race of *all* participants in the sample (e.g., 80% Caucasian, 15% African American, & 5% Asian American) [Figure 2 near here]. The average percentage of African Americans for the subset of articles that reported the race of all participants was 8.47% (SD = 10.34) and the modal number of African American participants was 0.

2.5   Discussion

Our review suggests that most studies do not describe their samples beyond age and gender and, to a lesser extent, education. It is unclear whether researchers are not asking their participants to describe themselves, or are not telling their readers in peer-reviewed research. Reporting of some identities is virtually nonexistent in the reviewed studies – sexual orientation

and disability, for example. Sexual orientation deserves special mention for social anxiety disorder, as others have specifically criticized measures of social anxiety that assume heterosexual orientation (e.g. "I get more anxious about members of the opposite sex;" Lindner, Martell, Bergstrom, Andersson, Per Calbring, 2013). Sexual minorities may participate in these trials; however, it is impossible to know given the current reporting practices.

Despite the effort to increase the racial diversity of research samples, our findings suggest that there is still dire need for improvement. The modal number of African American participants in social anxiety disorder treatment studies is the same as it was over 20 years ago – 0. The mean percentage of African American participants in social anxiety treatment studies from 2001-2012 was 8.47% (SD = 10.34). What explains the limited representation of African Americans in social anxiety disorder treatment-outcome studies, despite initiatives to increase minority participation? There are many possible explanations including recruitment methods, accessibility of the treatment and research site, diversity of the geographical area, mistrust of the research process, and/or stigma against mental health services (Gary, 2005).

In a review of progress made on the multicultural guidelines (Report of APA task force on Implementation of Multicultural Guidelines, 2008), the task force recommended the development of "reporting procedures that address background characteristics of research samples…to post desirable reporting practices on the authors' portal, the APA Web site, and other print locations where author instructions appear, and to include desirable reporting practices in the instructions to reviewers." We agree that in order to evaluate progress on the representation of social minority groups in treatment outcome research and to effectively generalize findings to diverse patient populations, studies must include a full report of the demographic characteristics of their samples. Standards for reporting the sample characteristics

of treatment studies, similar to Consolidated Standards of Reporting Trials (CONSORT), would improve mental health professionals' ability to evaluate the external validity of treatment research. We offer a few recommendations as starting points. A guiding principle for reporting on background characteristics of participants is that the *entire* sample should be described. Descriptions like "mostly white" or "highly educated" are problematic and should be avoided because they lack precision, mask potential variability within the proportion of the sample not included in the reference group, render some participants "invisible," and may reinforce dominant cultural groups as the standard. The way in which participants are asked to describe themselves also deserves attention. Participants, for example, may be reluctant to report upon social identities that are "invisible" or that are the object of discrimination and hate (e.g., being of a sexual minority status). Such concerns can be addressed with an option "prefer not to answer." The use of pre-defined categories is also a topic of debate because participants may not find an accurate descriptor within the alternatives. For example, a gay man who had been living with a partner for 20 years in a state that did not allow marriage for same sex couples, may not have found "married" or "single" accurate descriptors. One option is to use a dual approach for assessing participant characteristics. Questions include a "fill-in-the-blank" method to capture participants' own view of themselves, coupled with recognized classification systems (such as the US Census) to describe our sample in more commonly understood ways. In terms of what should be reported, we suggest that authors describe the age (mean and standard deviation), gender identity (e.g. percentage male, female, and other), racial identity as delineated by the US census (e.g. percentage White, Black of African American, American Indian and Alaskan Native, Asian, Native Hawaiian or Other Pacific Islander, Two or More Races, Hispanic or Latino), years of education (mean and standard deviation), relationship status (e.g. percentage

single, married, long-term partner, divorced, and widowed), socioeconomic status (e.g. annual income 0-25,000; 25-50,000; 50-80,000; 80-100,000; 100-150,000; 150+), employment status, any disabilities endorsed by participants, and sexual orientations (e.g. percentage straight, bisexual, gay, lesbian, and other) of their participants. The research question may warrant inclusion of additional background characteristics (e.g., English language learners, immigration history, number of dependents), as well.

2.6   Limitations

There are several limitations to the current review. In order to maximize inclusion of social anxiety treatment studies, there is wide variability in the types of studies that were included. The review includes treatment studies with children and adults, as well as different modes of administration including computerized and drug treatments. Future reviews may benefit from additional exclusion criteria to evaluate if there are differences in reporting practices by type of study. The implications of the review are also limited to social anxiety treatment studies based on our inclusion criteria. The current review does not evaluate the reporting practices of treatment studies for other anxiety disorders.

2.7   Final Conclusions

Standards for reporting the demographic characteristics of participants in treatment studies would improve our ability to evaluate the generalizability of studies' findings and improve the effective application of treatment research. Developing standards for reporting detailed sample information is a conversation to be had within the discipline and with other stakeholder groups to maximize the likelihood that guidelines that are empirically based, meaningful, practical, and will be accepted by researchers, participants, and journals. We think the results of this study highlight the need for such a conversation.

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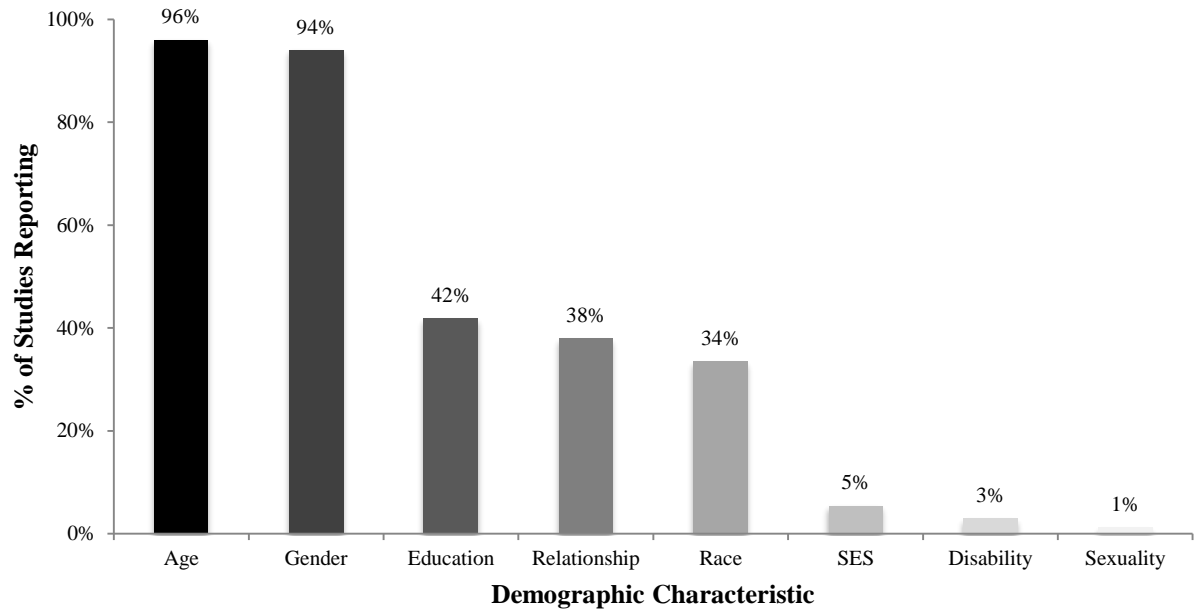doi:10.1177/0269881105056526

Figure 1 The percentage of treatment studies providing demographic information on their participants' demographic characteristics.
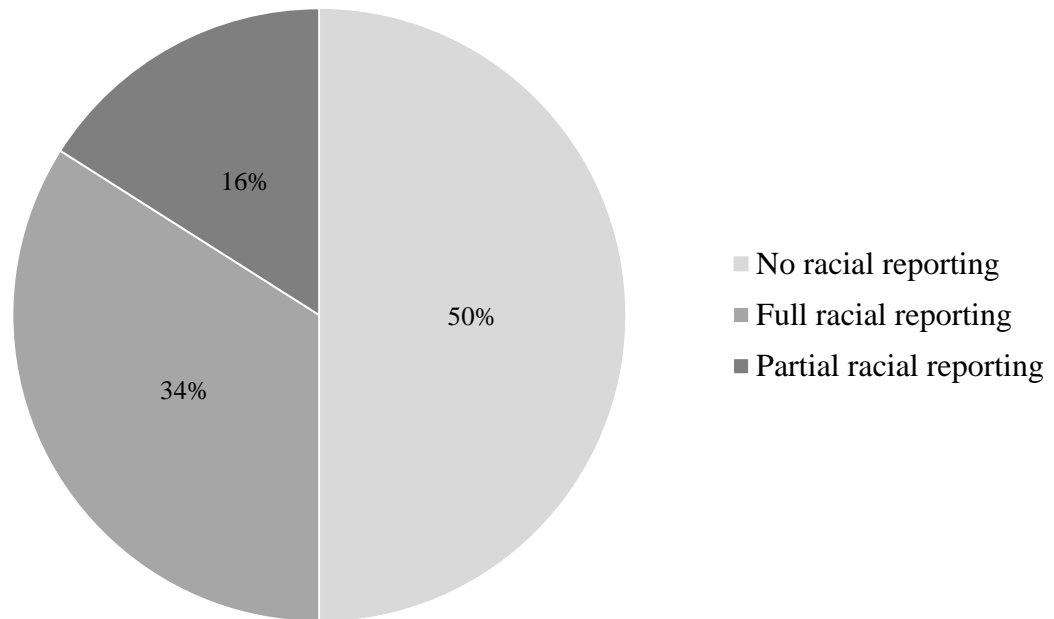
Figure 2 Percentage of studies that reported on their sample's racial composition.

3   ARTICLE 2

3.1   Abstract

Fear of negative evaluation is a central component of social anxiety. The current study examines the relation between fear of negative evaluation and fears of confirming stereotypes about a social group to which one belongs among people diagnosed with social anxiety disorder. Participants (N = 94) with a primary diagnosis of social anxiety disorder who self-identified as either African American (*n* = 41) or Caucasian (*n* = 53) completed standardized self-report measures of stereotype confirmation concerns and fear of negative evaluation. Results from hierarchical logistical regression showed that stereotype confirmation concerns predicted fear of negative evaluation for both racial groups, with greater concern predicting greater fear. This association was moderated by race, $B = -.24$, $t = -2.67$, $p < .01$, such that stereotype confirmation concerns had a stronger association with fear of negative evaluation for Caucasians ($b = .38$, $p < .01$) than for African Americans ($b = .14$, $p < .05$). This study is the first to directly examine the relation between stereotypes and fear of negative evaluation within a socially anxious sample. Although we cannot identify the specific social group to which each participant's stereotype confirmation concerns apply, this study provides quantitative evidence that the social context within which socially anxious individuals view themselves impacts their fear of negative evaluation and highlights the need for further research in this area.

Keywords: Social Anxiety; Stereotypes

3.2 Introduction

The fear of others' critical judgments in social situations is a core feature of social anxiety disorder (Stopa & Clark, 1993). Models of social anxiety propose that when social situations are encountered, individuals with social anxiety perceive others as critical, hold a negatively distorted view of themselves, estimate that negative evaluation from others is likely, and exhibit behavioral avoidance (Heimberg, Brozovich, & Rapee, 2010; Rapee & Heimberg, 1997). Judgment about the social groups to which individuals belong (e.g., groups based on age, gender, race, etc.) may be relevant to individuals' fears of negative evaluation, although this has yet to be tested empirically. The proposed study examines fear of confirming stereotypes as one way in which fears based on social group membership may influence individuals' fear of negative evaluation.

Stereotype confirmation concern is a "chronic experience of uncertainty and apprehension about appearing to confirm as self-characteristic a stereotype about one's group" (Contrada, Ashmore, Gary, Coups, Egeth, Sewell, Ewell, Goyal, & Chasse, 2001, p. 1778). It emerged from the robust literature on stereotype threat - a reduction in task performance when a stereotype about an individual's social group is made salient (Steele, 1997). Stereotype threat has been associated with greater physiological arousal (Blascovich et al., 2001) and more negative thoughts about one's performance (Cadinu, Maas, Rosabianca, & Kiesner, 2005). Whereas stereotype threat is an acute effect activated by situational cues, stereotype confirmation concern is conceptualized to be relatively enduring. The stereotype confirmation concern scale (SCCS) was developed to test this construct. Research using the SCCS has focused on racial groups, although the measure itself does not reference a particular social group (e.g., concerns about

confirming stereotypes related to age, gender, race, etc.). Contrada et al. (2001) found that although stereotype confirmation concern was highest among Blacks (relative to Asians, Latinos, and Whites), stereotype confirmation concern was positively correlated with stress and mood for all groups. All research using this measure has been conducted with non-clinical populations. There is little research that examines the effects of stereotypes, or worries about confirming them, among those who experience anxiety psychopathology.

One notable exception is Hunter and Schmidt's (2010) sociocultural model of anxiety psychopathology for Black adults, which specifically accounts for contextual factors, such as stereotypes, that may influence the expression of anxiety disorders. They suggest that for Blacks with social anxiety, fears related to minority status may include fears of being embarrassed or humiliated because of their racial status. Case studies of social anxiety treatment for Blacks support this assertion. Fink, Turner, and Beidel (1996) described the treatment of a Black female physician with social anxiety who experienced great distress in social environments at work, where almost all of her colleagues were white men. Initial exposures were ineffective until the racial composition of her perceived audience and her race-related worries were addressed, at which time treatment became more effective. Similarly, Johnson (2006) presented a case study of a Black female student with social anxiety who felt pressure to perform perfectly in order to counter negative stereotypes about the intelligence of her racial group.

Race, however, is not the only dimension upon which people are stereotyped and it is possible that stereotypes --and fears of confirming them-- may be relevant for social anxiety among racial minority and majority groups. Rapee and Heimberg's (1997) model of social anxiety is suggestive of the ways in which stereotype confirmation concerns could impact social anxiety. An individual with social anxiety who believes that others' endorse negative

stereotypes about her social group, may incorporate stereotypical images within her self-view as seen by others. She may estimate that the likelihood of negative evaluation is high based, in part, on negative stereotypes and fear of acting in a way that will confirm those negative stereotypes. Thus, stereotype confirmation concern could contribute to fear of negative evaluation among those with social anxiety disorder.

The purpose of this study is to examine the relation between stereotype confirmation concern and fear of negative evaluation among individuals with social anxiety disorder who self-identify as either Caucasian or African American. We hypothesize that stereotype confirmation concerns will be positively associated with fear of negative evaluation and that this relation will be moderated by race, specifically that the relation between stereotype confirmation concern and fear of negative evaluation will be stronger among African Americans than among Caucasians. Differences in the average levels of stereotype confirmation concerns will also be examined between racial groups; based on prior research we hypothesize higher levels of stereotype confirmation concerns among African Americans.

3.3   Methods

3.3.1   Participants

The sample ($N = 94$) included people eligible to participate in a randomized controlled trial comparing Virtual Reality Exposure Therapy (VRE; Anderson, Zimand, Hodges, & Rothbaum, 2005), Exposure Group Therapy (EGT; Hofmann, 2004), and a wait-list control group (see Anderson et al., 2013 for details). Participants were included if they self-identified as "African American" ($n = 41$) or "Caucasian" ($n = 53$), were literate in English, and had a primary diagnosis of social phobia with a predominant fear of public speaking as determined by the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders,

Fourth Edition (SCID-IV; First, Gibbon, Spitzer, & Williams, 2002). Participants were excluded if they had a history of seizure disorder, mania, schizophrenia, or other psychoses, as well as prominent current suicidal ideation, or current alcohol or drug abuse or dependence.

Participants were 56 women and 38 men with a mean age of 38.90 (*SD* = 11.14; range = 19 - 69) and with a high level of education (87% reported at least "some" college).

3.3.2   *Measures*

3.3.2.1   *Stereotype confirmation concerns scale.*

The stereotype confirmation concerns scale (SCCS; Contrada et al., 2001) is an 11-item measure of participants' fears that they are confirming a stereotype. Respondents rate how frequently over the past 3 months they have been "concerned that by _____ you might appear to be confirming a stereotype." Sample behaviors include "talking in a certain way" and "the way you look (your physical performance)." The scale does not specify a particular social group or stereotype(s) to which participants should reference when responding. Items are rated on a 7-point Likert type scale of 1 (never) to 7 (always). Total scores range from 11 to 77, and higher scores represent greater concern. The SCCS demonstrates excellent internal consistency, $\alpha = .91$ (Contrada et al., 2001). Similar results were found with this sample, $\alpha = .92$ among African Americans and $\alpha = .91$ among Caucasians.

3.3.2.2   *Fear of Negative Evaluation-Brief Form.*

The Fear of Negative Evaluation-Brief Form (BFNE; Weeks, Heimberg, Fresco, Hart, Turk, & Schneier, 2005) is a 12-item self-report questionnaire that measures the extent to which an individual worries about social judgment. Questions are answered on a 5-point Likert type scale (1 = not at all to 5 = extremely). Total scores range from 12 to 60, and higher scores

represent greater fear. Sample items are: "I am unconcerned even if I know people are forming an unfavorable impression of me," and "The opinions that important people have of me cause me little concern." The FNE-B demonstrates strong internal consistency, $\alpha = .94$ (Weeks et al., 2005). With this sample, it also has strong internal consistency, $\alpha = .80$ among African Americans and $\alpha = .94$ among Caucasians.

3.3.2.3 *Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition.*

The structured clinical interview for the diagnostic and statistic manual of mental disorders (SCID-I; First et al., 2002) is a semi-structured interview for assessing DSM-IV Axis I diagnoses. The SCID has excellent inter-rater reliability when used to assess SAD with an agreement of 92% and a test-retest reliability of .84 (Crippa, De Lima Osorio, Del-Ben, Filho, Freitas, & Loureiro, 2008).

3.3.3 *Procedure*

Participants' eligibility was assessed in a two-part process including a brief telephone screen and in-person assessment during which a doctoral candidate administered the SCID, and participants completed self-report measures. Four doctoral candidates in clinical psychology conducted all assessments. A clinical psychologist with extensive experience as an assessor within clinical research trained the interviewers. Training procedures included watching SCID training tapes, watching SCID interviews by a senior psychologist, and doing a mock SCID interview. The interviewers were rated by an independent assessor and also received weekly assessment supervision with the primary investigator to prevent rater drift. Interrater reliability was calculated for a random sample of ($n = 10$) interviews. There was 100% agreement on the primary diagnosis and one disagreement on symptom severity.

3.3.4 Results

Fear of negative evaluation ($M = 31.72$, $SD = 7.72$) was positively correlated with stereotype confirmation concerns ($M = 30.21$, $SD = 15.63$), $r = .47$, $p < .01$. All of the variables were normally distributed, with low skew and kurtosis, and all assumptions of regression were met.

As predicted, participants identifying as African American reported higher levels of stereotype confirmation concern than Caucasians ($M = 33.81$, $SD = 16.89$; $M = 27.25$, $SD = 14.00$, respectively), $t = 2.05$, $p < .05$. There were no differences in fear of negative evaluation between groups for African Americans and Caucasians ($M = 31.38$, $SD = 6.71$ and $M = 32.00$, $SD = 8.52$, respectively), $t = -0.38$, $p = .09$.

Because demographic differences between African Americans and Caucasians could influence group differences in the relation between stereotype confirmation concerns and fear of negative evaluation, we conducted a series of Chi-Square analyses and t-tests for gender, age, marital status, education, and income. There were no differences between African Americans and Caucasians in gender, $\chi^2 (1) = 3.80$, $p = .061$, or in average age, $t (91) = .36$ $p = .72$. There was a significant difference in marital status, $\chi^2 (5) = 27.31$, $p < .01$, in education level, $\chi^2 (6) = 14.60$, $p = .024$, and in income, $\chi^2 (5) = 20.21$, $p = .001$, with Caucasians reporting a greater likelihood of being married or living with someone, higher levels of educational achievement, and greater annual income than African Americans.

Variables on which African Americans and Caucasians differed (marital status, education, and income) were entered as covariates in the regression model testing the study hypothesis. None of the variables were significant predictors of fear of negative evaluation, $R^2 = -0.01$, $F (3, 91) = 0.55$, $p = .648$: marital status, $b = -0.02$, $p = .853$; education, $b = -0.03$, $p =$

.784; income, $b = .14$, $p = .214$ when entered as a first step, nor at any other step of the model

used to test the hypothesis. Because the demographic variables were not significant predictors of

the dependent variable and because their addition did not change the pattern results, we do not

include them in the results presented below, in which we test our primary hypothesis that

stereotype confirmation concerns will be a predictor of fear of negative evaluation and that the

association will be moderated by race such that the relation will be stronger for African

Americans than for Caucasians.

To test the hypothesis that race moderates the relation between stereotype confirmation

concerns and fear of negative evaluation, scores on the SCCS were centered and a product term

was created by multiplying the centered stereotype confirmation concerns composite variable

with race. A hierarchical multiple regression was used to predict participants' fear of negative

evaluation following the procedures of Cohen, Cohen, West, and Aiken (2003). The centered

stereotype confirmation concern score was entered as the first step, race was entered as the

second step, and the product of the two was entered in the third step. The Durbin-Watson test

showed that serial dependency was low, Durbin-Watson = 1.98. Tolerance values were well

above .10, ranging from .44-1.00 and VIF values were well below 10, ranging from 1.00-2.27.

Therefore, multicollinearity does not appear to be an issue.

The final model explained 27.9% of the variance in participants' fear of negative

evaluation, $R^2 = .28$, $F (3, 92) = 12.84$, $p < .01$. As shown in Table 1, in addition to a main effect

for stereotype confirmation concerns, $B = .38$, $t = 5.74$, $p <. 01$, the interaction between

stereotype confirmation concern and race was a significant predictor of fear of negative

evaluation, $B = -.24$, $t = -2.67$, $p < .01$, and its addition in step three led to a significant increase

in the model's predictive power, R^2 change $= .06$, $F (1.98) = 7.15$, $p < .01$. In order to probe the

interaction, race was reverse coded and the regression was rerun. As shown in Figure 1, and contrary to our hypothesis, stereotype confirmation concerns had a stronger association with fear of negative evaluation for Caucasians ($b = .38$, $p < .01$) than for African Americans ($b = .14$, $p < .05$). Although African Americans reported higher levels of stereotype confirmation concerns than Caucasians, the relation between stereotype confirmation concerns and fear of negative evaluation was stronger for Caucasians than for African Americans.

3.3.5   Discussion

This study is the first to show that stereotype confirmation concerns, which have been found to be associated with negative outcomes in non-clinical populations (Contrada et al., 2001), also are predictive of symptoms within a clinical population. Concerns about confirming a negative stereotype regarding a social group(s) to which one belongs had a significant positive relation with fear of negative evaluation among both African Americans and Caucasians with social anxiety disorder. This finding can be interpreted within Rapee and Heimberg's (1997) model of social anxiety. For example, people with social anxiety who also have high stereotype confirmation concerns may view the audience's perception of them as stereotypical. As a result, their mental images of themselves as seen by the audience may include stereotypical characteristics and they may expect that their performance would have to be of the highest quality to contradict those stereotypes. They may also fear acting in a way that will confirm those negative stereotypes because it may lead to their rejection. No empirical literature has directly tested these ideas; this is an area for future research.

Consistent with Contrada et al. (2001) and our hypothesis, socially anxious Blacks reported higher levels of stereotype confirmation concerns than Whites. Unexpectedly, the relation between stereotype confirmation concern and fear of negative evaluation was stronger

for Whites than for Blacks. The protective effects of racial socialization, racial identity, and coping with race-related stress for Blacks (Bynum, Burton, & Best, 2007; Neblett, Shelton, & Sellers, 2004; Plummer & Slane, 1996) may attenuate the relation between stereotype confirmation concerns and fear of negative evaluation for Blacks. This also is an area for future research.

Results suggest that stereotype confirmation concerns should be considered as a possible source of fear of negative evaluation among people with social anxiety disorder. When devising exposure exercises for those with social anxiety, it may be useful to include situations that induce stereotype confirmation concerns. Clinicians could query socially anxious clients about their social identities and whether stereotype confirmation concerns are activated in feared social situations. Such lines of inquiry allows for further consideration of the influence of the client's social identities on feared social situations and is in keeping with culturally competent practice (Anderson, Lewis, Johnson, Morgan, & Street, in press). A review of case studies for social anxiety disorder suggests that the impact of social identity and stereotypes is most likely to be considered for racial minority women (Fink, Turner, & Beidel, 1996; Johnson, 2006). The findings of the present study suggest that we should assess this for minority and majority group members.

A major limitation of this study is that the measure of stereotype confirmation concerns allows the respondents to answer based on any stereotype of a group with which they self-identify (e.g., gender, race, sexual orientation). Thus, we cannot make assertions about the nature of the stereotypes about which participants were thinking when answering the self-report measure. Furthermore, given the intersectionality of social identities, respondents might also refer to multiple social identities when answering items (Cole, 2009). It is worth noting that both

case studies examining the influence of stereotypes did so among African American women (Fink, Turner, and Beidel, 1996; Johnson, 2006). Future research on stereotype confirmation concerns and social anxiety disorder would benefit from detailed assessment of the nature of the stereotypes that participants fear they will reinforce, which could include more than one social identity. Future research should also directly evaluate whether explicitly targeting stereotype confirmation concerns during exposure, or other aspects of therapy, reduces fear of negative evaluation and other symptoms of social anxiety.

Another limitation is that our sample is composed of only those who self-identified as Caucasian and African American. Stereotype confirmation concerns are likely applicable to members of other races (and social groups) and differences in the levels of stereotype confirmation concerns across groups may shift over time (e.g., stereotype confirmation concerns may be higher for those of Middle Eastern descent in the post 9/11 world). Future research on stereotype confirmation concerns would benefit from a diverse sample of social groups that would provide a broader view of group differences and the differential impact of fears of confirming stereotypes.

This study is one of few to directly examine the impact of social identities on the experience of social anxiety. It provides quantitative evidence that the social context within which socially anxious individuals view themselves impacts their fear of negative evaluation. For both Blacks and Whites with social anxiety disorder, fear of negative evaluation was predicted by stereotype confirmation concerns - a construct that captures one aspect of social interaction in a socially heterogeneous world. Research should continue to examine how stereotypes and other aspects of social group experience impact social anxiety and its treatment.

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Table 1 Hierarchical Regression: Race as a Moderator of Stereotype Confirmation Concerns Predicting Fear of Negative Evaluation

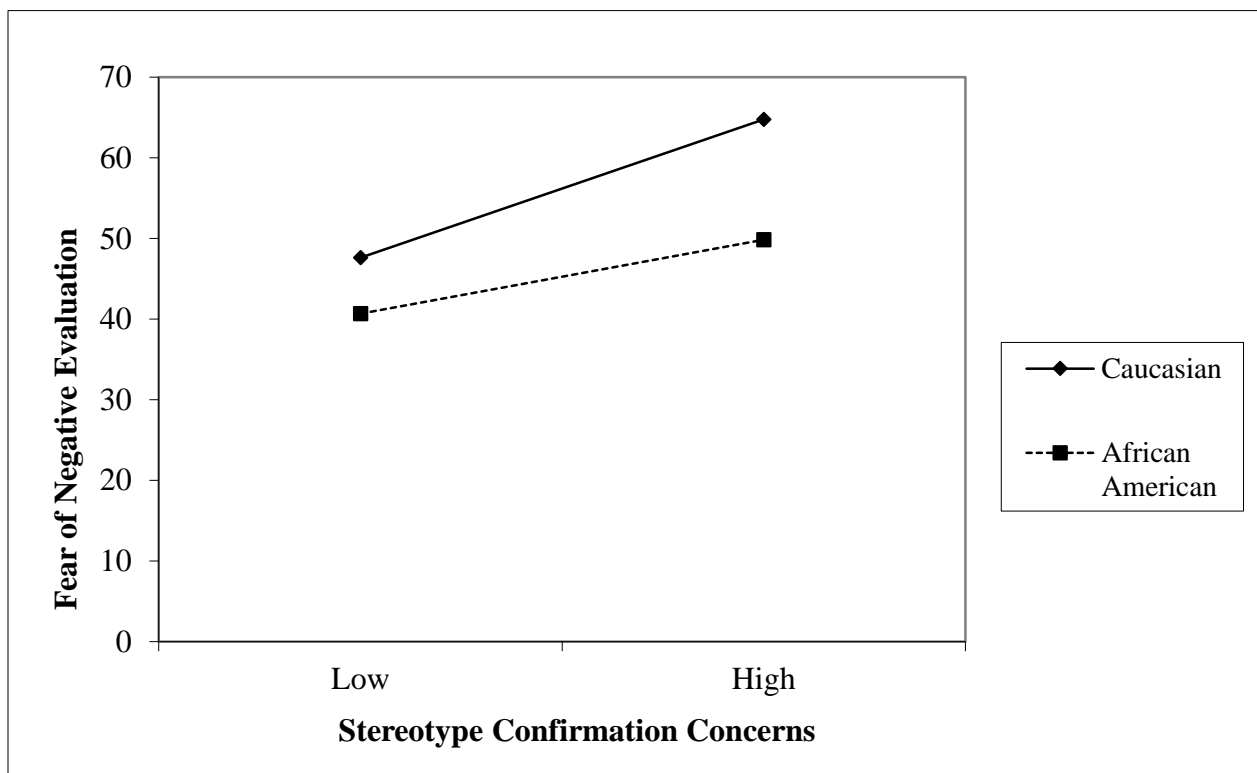|	B	SE	t	Model R^2
Step 1				.217*
Stereotype Confirmation Concerns	.234	.046	5.147*	
Step 2				.229*
Stereotype Confirmation Concerns	.250	.046	5.401*	
Race	-2.259	1.444	-1.564	
Step 3				.279*
Stereotype Confirmation Concerns	.380	.066	5.742*	
Race	-2.127	1.398	-1.521	
SCCS X Race	-.240	.090	-2.674*	

Note. *p < .01.

Figure 3 The effect of SCC on fear of negative evaluation moderated by minority status. The slopes for majority and minority status groups are both significant; however, SCC has a stronger effect on fear of negative evaluation for the majority group.

3.3.7 Acknowledgments

4   ARTICLE 3

4.1   Abstract

Background: There are high attrition rates observed in efficacy studies for social anxiety disorder, and research has not identified consistent nor theoretically meaningful predictors of dropout. Pre-treatment symptom severity and demographic factors, such as age and gender, are sometimes predictive of dropout. The current study examines a theoretically meaningful predictor of attrition based on experiences associated with social group membership rather than differences between social group categories--fear of confirming stereotypes. Methods: This is a secondary data analysis of a randomized controlled trial comparing two cognitive behavioral treatments for social anxiety disorder: virtual reality exposure therapy and exposure group therapy. Participants (N= 74) with a primary diagnosis of social anxiety disorder who were eligible to participate in the parent study and who self-identified as either "African American" (n=31) or "Caucasian" (n=43) completed standardized self-report measures of stereotype confirmation concerns (SCC) and social anxiety symptoms as part of a pre-treatment assessment battery. Results: Hierarchical logistic regression showed that greater stereotype confirmation concerns were associated with higher dropout from therapy--race, age, gender, and pre-treatment symptom severity were not. Group treatment also was associated with higher dropout. Conclusions: These findings urge further research on theoretically meaningful predictors of attrition and highlight the importance of addressing cultural variables, such as the experience of

stereotype confirmation concerns, during treatment of social anxiety to minimize drop out from therapy.

Keywords: Social Anxiety; Dropout; Stereotypes; Virtual Reality Exposure, Cognitive Behavioral Therapy

4.2   Background

Attrition is an important issue in the practice and research of psychotherapy. People who suffer from treatable disorders may not benefit from evidenced-based therapies if they drop out of treatment prematurely. For example, considerable evidence shows that cognitive behavioral and exposure-based interventions are effective when used to treat social anxiety disorder [1,2]; many participants, however, leave treatment prematurely [3]. Unfortunately, predictors of dropout from treatment for social anxiety disorder are poorly understood.

A recent review of 16 randomized controlled trials found no consistent predictors of dropout [4]. Severity of social anxiety symptoms predicted dropout in two efficacy trials, but with different effects. The first indicated a positive relation between pre-treatment levels of social anxiety and dropout [5], whereas the second showed a negative relation [6]. Many other studies have not found symptom severity to be a predictor of attrition [7,8]. Therefore, research does not consistently support the idea that participants with social anxiety disorder are discontinuing treatment because of the intensity of their social anxiety symptoms when confronted with new social environments.

Demographic factors also have been examined as predictors of attrition from treatment for social anxiety disorder. Younger participants and women were more likely to drop out in two studies [9,10], but age and gender were not significant predictors of attrition in other studies [7,8]. Furthermore, scholars have criticized the use of demographic factors (including gender,

age, and race) as predictors in the absence of other contextual data, as it provides limited information for interpretation [11]. Another approach to understanding the impact of social identities on attrition is to examine the experiences associated with social group membership rather than differences between social group categories. To that end, the current study examined stereotype confirmation concerns as a predictor of attrition.

Stereotypes have long been known to impact mental health and behavior [12]. People with high stereotype confirmation concerns "chronically experience uncertainty and apprehension about appearing to confirm as self-characteristic a stereotype about a group to which they belong" [13, p. 1778]. Stereotype confirmation concerns can apply to any of the social groups with which individuals identify (e.g., groups based on gender, racial, sexual, and/or religious identity). All racial groups show a positive relation between stereotype confirmation concerns, stress and negative mood [13]. However, African Americans report the highest levels of stereotype confirmation concerns relative to Latinos, Asians, and Caucasians [13].

Stereotype confirmation concerns (SCC) may be useful for understanding the treatment behavior of people with social anxiety. The negative, distorted image of oneself that is characteristic of socially anxious individuals [14] may include the stereotypes about the social groups to which they belong. A person with social anxiety disorder could fear acting in a way that confirms stereotypes because it may lead to her rejection and also to perpetuate negative stereotypes about her social group. Only two case studies have explicitly discussed the impact of stereotypes or fears of confirming them on treatment for social anxiety [15,16]. Johnson [16] argued that the expectation of being judged according to negative racial stereotypes is a prominent fear among African American college students and presented a case study of an African American female whose treatment involved identification of race-related triggers of her

social anxiety. Similarly, in a case study of an African American woman with social anxiety disorder, Fink, Turner, & Beidel [15] found that the fear of being judged according to stereotypes was a central feature of social fears; racially relevant interpersonal contexts served as antecedents for fear of negative evaluation, and directly addressing these fears during exposure therapy was effective. These studies highlight that racial stereotypes and the fear of being evaluated according to them can be important triggers [of social anxiety] and [may be] beneficial when incorporated into treatment of social anxiety disorder. Future research is necessary to generalize the findings of these case studies by examining the impact of stereotypes confirmation concerns on those with social anxiety disorder and on their treatment.

No research to date has examined whether or not stereotype confirmation concerns are related to attrition from treatment. People with high stereotype confirmation concerns may be at greater risk to drop out of therapy for fear of confirming therapists' stereotypes about the client's social groups. If participating in group therapy, the gold standard treatment for social anxiety disorder, a person may also have concerns about confirming stereotypes of other group members.

We investigate the relation between SCC and dropout from cognitive behavioral therapy for social anxiety in two different formats (individual and group) among a sample of participants who self-identify as either "African American" or "Caucasian." Based on prior literature, we hypothesize that SCC will be higher for African Americans than for Caucasians. We predict that SCC will be associated with attrition for both groups, but will have a stronger association among African Americans because prior literature shows that stereotype confirmation concerns have the strongest negative impact on African Americans [13]. Variables associated with attrition in prior studies, including demographic factors and pre-treatment symptom severity, are also examined.

4.3 Methods

4.3.1 Participants

Participants were 74 individuals diagnosed with social anxiety disorder who received treatment as part of a larger randomized controlled trial [17] comparing Virtual Reality Exposure Therapy (VRE) [18], Exposure Group Therapy (EGT) [19], and a wait-list control group. Approval from the Georgia State University Institutional Review Board (IRB) was obtained for this study and each participant provided informed consent prior to participating. Participants were included in the current study if they were literate in English and had a primary diagnosis of social anxiety disorder with a primary fear of public speaking, as determined by the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (SCID-IV) [20]. Exclusion criteria included history of seizure disorder, mania, schizophrenia, or other psychoses, as well as prominent suicidal ideation, or current alcohol or drug abuse or dependence. For the present study, only individuals who self-identified as "African American" (42%, $n = 31$) or "Caucasian" (58%, $n = 43$) were included.

The sample had slightly more females (61%, $n = 45$) than males, with an average age of $M = 39.56$, $SD = 11.43$. The sample was well educated, 33% completed college, and 44% reported their relationship status was married. Most were middle class, with 43% having an annual income of $50,000 or more. There were 42 participants (57%) in the group treatment (EGT) and 32 participants (43%) in the virtual reality treatment (VRE). The majority of the participants did not have a comorbid diagnosis ($n = 61$, 81%).

4.3.2   Measures

4.3.2.1   Social anxiety

The Liebowitz Social Anxiety Scale-Self Report (LSAS-SR) [21] is a self-report version of a clinician-administered measure of social anxiety [22] consisting of 24 items using a 4-point rating scale, with a total score that ranges from 0-144. Higher scores indicate greater social anxiety. The self-report measure performs similarly to the clinician-administered version [21], with reliability estimates that range from .88 to .95 [23]. Reliability for the current study was excellent with $\alpha = 0.94$.

4.3.2.2   Stereotype confirmation concerns

The stereotype confirmation concerns scale (SCCS) is an 11-item measure of participants' fears that they are confirming a stereotype about one's social group over a range of social and behavioral domains [13]. Items are rated on a 7-point Likert type scale ranging from 1 (*never*) to 7 (*always*) and a total score ranging from 11 to 77, with higher scores reflecting greater concern over confirming stereotypes. Participants rate how often over the past three months they have been "concerned that by ___ [they] might appear to be confirming a stereotype about [their] group." Examples of items include "dressing a certain way," "talking in a certain way," and "revealing your socioeconomic status." The reference group (e.g., age, gender, race) for which respondents rate stereotype confirmation concerns is not specified in this measure. Internal consistency for the SCCS is excellent (Chronbach's $\alpha = .91$) [13]. Reliability for the current study was excellent with $\alpha = 0.92$.

4.3.3   Procedures

4.3.3.1   Screening

Potential participants were first screened by phone and then invited for an in-person assessment, during which a doctoral candidate administered the Structured Clinical Interview for the DSM-IV (SCID) to determine if the individual met criteria for a primary diagnosis of social anxiety disorder and other comorbid disorders. Four doctoral candidates in clinical psychology, supervised by a licensed psychologist, conducted all assessment procedures. Inter-rater reliability was calculated for a randomly selected subset (10%) of interviews. Agreement on the primary diagnosis was 100%, with one disagreement on illness severity.

4.3.3.2   Treatment

Both treatments consisted of eight sessions of cognitive behavioral therapy designed to target processes identified in the psychopathology literature as maintaining social anxiety disorder, including self-focused attention, negative perceptions of self and others, perceptions of lack of emotional control, and realistic goal setting for social situations. Both treatments were administered according to a manual [18, 24]. The primary difference between the two therapies was the method of exposure. During exposure group therapy, exposure was delivered using other group members; during virtual reality treatment, exposure was delivered using virtual reality. The original developers of the treatments manuals provided ratings of adherence to protocols for a randomly selected subset of videotaped sessions (14%). Compliance to the treatment protocols was quite good for each treatment, with 92% and 93% of the essential elements of the protocols being completed for VRE and EGT, respectively, and one infraction for each treatment type across all sessions reviewed. See Anderson et al., [17] for study details.

4.3.3.3 Data Analysis

A hierarchical logistic regression [25] was used to identify predictors of dropout status in each treatment condition. Dropout status was defined as a dichotomous variable such that $0 =$ treatment completer and $1 =$ dropout. Participants in the EGT condition were classified as a dropout if they missed more than two EGT sessions, whereas those in the VRE condition were considered a dropout if they missed more than one session. Dropouts were conceptualized differently for each condition because of challenges with scheduling. EGT sessions could not be rescheduled based on the needs of a single participant, whereas VRE sessions could be altered to accommodate the needs of a specific participant. Such difficulties have been discussed in prior studies [26].

A hierarchical logistic regression was used to identify predictors of dropout from treatment. The order of entry for the variables was based on their support from previous literature; those that were found to be significant predictors in previous literature were entered first and exploratory variables were entered in the final step. Treatment type (VRE or EGT) was first entered as a covariate in order to account for the differences in therapy format. Significant predictors from prior research (i.e., gender, age, and pretreatment severity) were included in the second step of the model. Finally, racial group, stereotype confirmation concerns, and their interaction were included. Given the exploratory nature of the last step, variables in the final step were entered in a stepwise fashion with backwards removal to identify an optimally fitting model.

4.4   Results

Descriptive information is provided in Table 1. Consistent with our hypothesis, there was a significant difference in stereotype confirmation concern scores between African Americans

and Caucasians, $F(1, 76) = 9.74$, $p < 0.01$. African Americans ($M = 35.50$, $SD = 17.46$) reported significantly higher scores than Caucasians ($M = 24.63$, $SD = 13.29$).

A hierarchical logistic regression was used to determine predictors of dropout from treatment. Hosmer and Lemeshow goodness of fit tests suggested that the model demonstrated adequate fit in the first step ($\chi^2 = 5.47$, $p = 0.71$). There are no indicators of multicollinearity (the Tolerance value range from .84 to.94 and the VIF values range from 1.07 to 1.37). The normality of the variables was also examined; all of the variables were normally distributed, with low skew and kurtosis. The assumption of linearity of the logit was also met (the logistic regression was run with the interaction terms of each continuous predictor and its log, none of which were significant predictors). As shown in Table 2, in the second step group treatment was associated with an increased likelihood for dropout (OR = 3.77, $p = 0.04$, 95% CI [1.10-12.98]), but age, gender, and pretreatment severity were not significant predictors of attrition. Racial group, stereotype confirmation concerns, and their interaction were entered in the final step and, given the exploratory nature of these variables, stepwise entry with backwards removal was used for the final step. Hosmer and Lemeshow goodness of fit tests suggested that the final model demonstrated good fit ($\chi^2 = 6.67$, $p = 0.57$); in addition Nagelkerke $R^2 = 0.28$ and $-2LL = 70.44$. As shown in Table 2, the final model showed that stereotype confirmation concerns (B = 0.03, OR = 1.04, $p = 0.03$, 95% CI [1.01-1.08] and participating in group therapy (B = 1.35, OR = 3.84, $p = 0.04$, 95% CI [1.04, 14.13] were associated with an increased likelihood for dropout. There was not a significant effect of racial group or its interaction with stereotype confirmation concerns, and their removal from the model did not decrease model fit.

4.5   Discussion

As hypothesized, stereotype confirmation concerns were related to dropout from cognitive behavioral therapy for social anxiety disorder. Given that fear of negative evaluation is a primary component of social anxiety [27], concerns about negative evaluation of one's social group and oneself as a representative of that group may exacerbate fear of social situations and lead to avoidance (dropout). For example, research on meta-stereotypes (individuals' perceptions of others' stereotypes about their own social group) finds that Blacks believe Whites endorse negative racial stereotypes about their group and view them as violent, unintelligent, and lazy [28]. Clinically, these findings have several implications. The results suggest that therapists should be aware of the impact of stereotype confirmation concerns to potentially prevent attrition. A multicultural perspective can be incorporated into various therapies and culturally-adapted interventions have been found to have a moderately strong benefit [29]. In keeping with multicultural competency, it may be beneficial for clinicians to measure clients' stereotype confirmation concerns before treatment, as such fears may also be related to client's anticipated negative outcomes and clients' avoidant behavior, including premature dropout from therapy. Gaining information on clients' social identities and fears of confirming stereotypes would allow for consideration of their influence on the clients' feared social situations, which could enrich exposure.

Participants assigned to group therapy were more likely to dropout than those who assigned to virtual reality therapy delivered in an individualized format. Group therapy may be more difficult for those with social anxiety to complete because in vivo social interactions of any kind may evoke greater anxiety and induce avoidance [17]. Although this study was not sufficiently powered to look at the different treatment conditions, it may be the case that

stereotype confirmation concerns are more relevant for group treatment than for individual treatment. The presence of individuals from multiple social groups in group therapy may make stereotypes more salient and therefore induce stereotype confirmation concerns, which in turn could increase the likelihood for dropout. It may be useful to consider social identities and fear of confirming negative stereotypes when discussing interpersonal patterns or anxiety evoked within the group setting. This is an area for future research.

The findings of the current study should be considered within the context of its limitations. These data were collected as part of an efficacy-focused RCT in a psychology training clinic. Although participants were recruited from the community, the findings may not be generalizable to effectiveness settings, and future research is needed to evaluate the impact of stereotype confirmation concerns on attrition in other care settings. Importantly, the measure of stereotype confirmation concerns did not specifically assess which stereotype(s) participants were concerned about confirming (e.g., gender, race, religion). The stereotypes that drive an individual's uncertainty and apprehension can vary widely, because each person identifies with multiple social groups (e.g., gender, race, religion), each of which may have stereotypes (both negative and positive) that people view themselves as being at risk of perpetuating. Future research on stereotype confirmation concerns and social anxiety would benefit from gathering qualitative information on the nature of the stereotypes that participants fear they will reinforce. Finally, due to sample size limitations, the current study only included those who self-identified as African American or Caucasian. Therefore, the extent to which these associations can be applied to other racial and ethnic groups is limited.

4.5.1 Conclusions

The current study provides new insights into the issue of attrition in social anxiety treatments and suggests that future research could benefit from focusing on predictors of attrition that address one's social identities within the context of cognitive behavioral therapy.

4.6 Competing Interests

The authors declare that they have no competing interests.

4.7 Authors' Contribution

SJ, MP, NM, and PA contributed to the hypotheses and study design. SJ, MP, and NM drafted sections of the manuscript. MP and SJ contributed to the analysis and its interpretation. PA edited each version of the manuscript. All authors read and approved the final manuscript.

4.8 Acknowledgements

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Table 2 Descriptive statistics for treatment completers and treatment dropouts.

	Completer		Dropout	
	VRE (n = 27)	EGT (n = 27)	VRE (n = 5)	EGT (n = 15)
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*
LSAS-SR	51.04 (22.07)	51.03 (20.80)	63.80 (18.71)	56.04 (16.30)
SCCS	26.96 (14.54)	25.63 (14.28)	30.60 (9.91)	39.67 (2.69)
Age	38.74 (11.53)	43.30 (11.84)	37.60 (13.05)	34.27 (8.22)
	n (%)	*n* (%)	*n* (%)	*n* (%)
African American	9 (33%)	9 (33%)	1 (20%)	12 (80%)
Male	8 (30%)	14 (52%)	1 (20%)	6 (40%)
College Graduates	18 (67%)	20 (74%)	3 (60%)	9 (60%)
Unpartnered	9 (33%)	12 (44%)	3 (60%)	12 (80%)

Note. VRE = Virtual Reality Exposure Therapy. EGT = Exposure Group Therapy. LSAS-SR = Liebowitz Social Anxiety Scale. SCCS = Stereotype Confirmation Concerns Scale.

Table 3 Logistic regression identifying indicators of attrition.

	B	SE	OR	95% CI
Step 1: Treatment as Covariate				
Treatment Type (Group)	1.10	0.58	3.00	0.96-9.42
Step 2: Inclusion of Previously Supported Predictors				
Treatment Type (Group)	1.33	0.63	3.77*	1.01-12.98
Age	-0.06	0.03	0.95	0.89-1.00
Gender (Male)	-0.17	0.62	0.85	0.25-2.83
Pretreatment Severity	0.02	0.01	1.02	0.99-1.05
Step 3: Final Model (Backwards Deletion of SCCS, Race, & their interaction)				
Treatment Type (Group)	1.35	0.66	3.84*	1.043-14.125
Age	-0.06	0.03	0.95	0.893-1.001
Gender (Male)	-0.27	0.66	0.76	0.211-2.759
Pretreatment Severity	0.01	0.02	1.01	0.980-1.042
SCCS	0.04	0.02	1.04*	1.005-1.082

Note: * = $p < 0.05$. OR = Odds Ratio. 95% CI = 95% Confident Interval. SCCS = Stereotype Confirmation Concerns Scale.

5   CONCLUSIONS

5.1   Implications within the Social Anxiety Literature

Social anxiety disorder is an inherently *social* psychological disorder. An important complexity to the human experience is that our social identities contribute to our sense of self in relation to others. Taken together, the studies presented in this dissertation suggest that our current conceptualization of the experience and treatment of social anxiety disorder may be expanded by considering variables associated with the experience of social identities in a social context. The first chapter of this dissertation demonstrates that clinicians may not be able to effectively generalize the findings of treatment studies of social anxiety disorder when the social identities represented in the samples are not reported. In fact, we may be missing important variability within the population if our samples are not diverse. The second and third chapters of this dissertation demonstrate that stereotype confirmation concerns is one such social variable that can significantly influence social anxiety disorder.

In 1991, Neal and Turner reported on the lack of representation of African Americans in social anxiety research. Since its publication, their article has been cited 106 times in Psycinfo, a comprehensive database of behavioral and social science research that is updated weekly and has 4,070,622 records. The first article of this collection was intended to update and expand on Neal and Turner's (1991) findings by looking more broadly at whether participant demographic characteristics are even reported. The findings may function as an alert to authors of treatment studies for social anxiety disorder to report on the demographic characteristics of their samples. Hopefully, if disseminated, it may also serve as an alert to the larger research community that we may be generalizing findings without sufficient information about studies' participants. The findings of this article implore researchers to consider the diversity of their samples and to

actively measure and report demographic information about their sample. Given that there are thorough standards for writing style, guidelines on the minimum demographic characteristics that should be reported in treatment studies would be a meaningful addition to reporting guidelines such as CONSORT (Consolidated Standards of Reporting Trials), TREND (Transparent Reporting of Evaluations with Non-experimental Designs), the APA Publication Manual, and the journals themselves.

The value in reporting the demographic characteristics of treatment samples is that doing so enhances the external validity of the study, allows for the examination of group differences based on social identities (e.g. mean differences between races or genders), and may inform investigation of the impact of social identities on social anxiety disorder. The second and third studies investigated a specific aspect of the internal experience of identifying with social groups. The addition of stereotype confirmation concerns to our current conceptualization of social anxiety disorder has the potential to enhance our understanding of the cognitive processes that occur for socially anxious individuals. A key facet of the construct is that it is applicable for everyone, across social groups. The construct does not include the content of specific stereotypes that an individual fears they might confirm. This has the advantage of capturing the experience of potentially complicated intersectionality of multiple social identities, and the disadvantage of lacking specificity of stereotypes. Therefore, examinations of group differences in this construct must be interpreted with caution because researchers cannot infer the content of the stereotypes to which participants to responding. Despite the loss of specificity, in keeping with the principle of intersectionality, by evaluating stereotype confirmation concerns in this way we learn how stereotypes may be impacting individuals across social group categories. In other words, stereotype confirmation concerns focuses on *the process* of experiencing stereotypes in

one's social contexts, *rather than the content* of those specific stereotypes. Further examination of the effects of stereotype confirmation concerns on social anxiety may provide a more complete depiction of the complex self-other interactions that occur in a socially diverse environment.

It may be that stereotype confirmation concerns are influencing cognitive processes for those with social anxiety disorder. The depiction of the socially anxious individual's perception of their audience could include an awareness of the social identities represented in the audience, as well as include the socially anxious individual's evaluation of how they are similar or different from their audience members. The individual's perception of self in relation to others is a part of their self-evaluative process and their social identities may impact these internal social comparisons. For example, fears of acting in a way that might validate a negative stereotype about one's group may influence the individual's perceived cost of failing because to do so would not only represent a personal cost, but a collective cost to his social group. That is, he would not only let down himself and those he has immediate contact with (e.g. supervisor, spouse) but his entire social group.

In addition, although one of the above studies found that stereotype confirmation concerns predicted attrition, it may also be an important element of treatment. Stereotypes may become salient during group (or individual) therapy for social anxiety disorder and the similarities or differences in the social identities of the client and the other group members may impact the degree of stereotype confirmation concerns that the client experiences. Current treatments for social anxiety disorder may benefit from addressing the influence of stereotype confirmation concerns. If fears of confirming negative stereotypes predict fears of negative evaluation and a client experiences high levels of stereotype confirmation concerns during

avoided social interactions, eliciting stereotype confirmation concerns may become a goal for effective exposure during therapy. As with the case study presented in chapter one in which exposures were only effective when the race and gender of the audience were taken into account (Fink, Turner, & Beidel, 1996), exposures may be more effective when environments that elicit stereotype confirmation concerns are included. Therefore, measuring stereotype confirmation concerns before and during therapy may be a useful tool to prevent attrition, as well as to guide effective exposures.

The findings of these articles suggest that at least one variable associated with the subjective experience of identifying with social groups affects social anxiety disorder. However, these findings are clearly not a complete representation of how social identities affect social anxiety disorder. Stereotype confirmation concerns is simply one feature of the experience of social identities within a diverse social environment. The subjective experience of social identities is complex, including the intersectionality of social identities and the influence of contextual variables that depend on the situation. Therefore, the findings that one aspect of this experience significantly predicted fear of negative evaluation and attrition suggest that there may be other variables associated with the experience of our social identities which impact social anxiety disorder but have yet to be examined.

5.2   Future Directions

This collection of studies emphasizes the need for future research to consider social identities at multiple steps in the research process, including developing hypotheses about how variables associated with social identities influence social anxiety disorder, implementing recruitment strategies to increase diversity, measuring the social identities of participants, and reporting the demographic characteristics represented in one's sample. Based on the findings of

the first study in this collection, recent social anxiety treatment research has essentially

demonstrated a consensus of reporting age (96%) and gender (94%). In proposing new

guidelines that certain demographic characteristics should be reported in treatment studies,

further research may help navigate the potentially controversial choices of which characteristics

to include in those standards. Future studies may consider gathering data from both researchers

and clinicians in clinical, community, counseling, and social psychology on their perceptions of

what demographic characteristics are necessary to effectively generalize from treatment studies.

Doing so may allow for some degree of informed decision-making regarding the minimum

demographic characteristics that should be reported. In addition, the problem of limited

demographic information about treatment samples may not be unique to the social anxiety

literature. Instead, it may be a more pervasive issue in treatment research. Future studies could

expand the scope of the first article by addressing the reporting of demographic characteristics in

treatment research for other psychological disorders.

The second and third studies of this dissertation suggest that although it is important to

measure and report the demographic characteristics of participants, it is not simply the categories

of social identities that are relevant, but also the experience of holding these multiple and

intersecting identities. The impact of stereotype confirmation concerns on fear of negative

evaluation and attrition from treatment suggests that attending to the experience of social

identities may provide further insight into the experience of social anxiety disorder, how best to

treat it, and how to prevent attrition. Further exploration of stereotype confirmation concerns

may elucidate both individual and group differences in how it functions. For example, the

influence of stereotype confirmation concerns may relate to aspects of one's social identity. For

example, even if an individual does not hold a particular social identity as central to her sense of

self (i.e. centrality is low), that social identity may become salient in a situation and still provoke stereotype confirmation concerns. However, it may be that if that social identity was high on centrality, she would evaluate confirming a stereotype as more personally costly than if her centrality is low. Therefore, it may be that the influence of stereotype confirmation concerns is impacted by different components of one's social identity. Examination of other variables related to the experience of social identities may shine light on the ways in which the complex subjective experience of social identities affects social anxiety disorder--for example, degree of social group socialization (e.g. learned gender norms from one's mother), prior experiences of discrimination based on social identities, and assimilative beliefs. As suggested above, the pressure of being viewed as a representation of one's social group may influence these processes. The potential of representing one's social group poorly may relate to fears of confirming negative stereotypes and may increase the estimation of the social costs of negative evaluation. Research on how social anxiety is influenced by stereotypes, and other experiences associated with social identities, would benefit from considering additional variables. Next, I present some of the extant literature on variables of interest for future research.

5.2.1 *Internalized Stereotypes*

The effects of stereotypes on social anxiety may be impacted by whether or not the socially anxious individual believes the stereotype to be descriptive of themselves and their social group. Internalized stereotyping is identifying with stereotyped characteristics regarding one's social group. Harrell (2000) suggests that internalization of negative racial stereotypes may create a vulnerability to race-related stress and maladaptive outcomes. Some developmental models of racial identity suggest that internalized stereotypes can be conceptualized as part of internalized racism and is associated with negative outcomes (Pyke, 2010; Cross, Parham, &

Helms, 1991). Many studies have shown that internalized racism is associated with increased psychological distress, poor self-esteem, and stress in response to racist experiences (Carter, 1991; Parham & Helms, 1985; Graham, West, Martinez, & Roemer, 2016; Szymanski & Gupta, 2009). In addition, some studies have demonstrated the specific impact of internalized stereotypes about one's age, gender, sexuality, and race. When investigating internalized stereotypes about growing older, Kornadt and Rothermund (2012) found that holding age stereotypes had a significant impact on one's concept of one's own age and the relation was stronger for older adults. Internalized stereotypes have also been found to affect women's perception of their math ability and their expectations regarding their own performance, even among women who had chosen counter-stereotypic areas of study (Bonnot & Croizet, 2007). Shen, Liao, Abraham, & Weng (2014) found that among Asian American students internalized stereotyping partially mediated the relations between parental pressure and self-efficacy, outcome expectancy, and interests in their occupation. In addition, internalized stereotypes about homosexuality have been found to mediate the relation between past parental rejection and current psychological distress (Puckett, Woodward, Mereish, & Pantalone, 2015). Together, these findings suggest that endorsing stereotypes about one's social groups may negatively impact self-perception. Whether or not the socially anxious individual internalizes a stereotype may impact fears of confirming that stereotype. Future studies should explore whether or not internalization affects the influence of stereotype confirmation concerns on social anxiety.

5.2.2 Positive Stereotypes: Model Minority Myth

There is also research to suggest that stereotypes with positive valences can also have detrimental effects to well-being. The perception of being evaluated based on a positive stereotype may lead to fear of not meeting the high expectations associated with the stereotype.

Studies have found that Asian Americans experience a pressure to demonstrate intelligence and perform mathematically because of the 'model minority' stereotype, which leads to anxiety and a concern about appearing smart (Son & Shelton, 2011). The model minority myth refers to the stereotype that Asian Americans are more sucessful than other racial groups and that their success is due to stronger values of hard work (Yoo, Burrola, & Steger, 2010). Oyserman and Sakamoto (1997) found that 52% of Asian Americans expressed negative feelings about the model minority myth and described the unfair expectations that it provoked. Studies have also demonstrated that the model minority stereotype is associated with symptoms of depression (Chen, 1995), shame (Chu, 2002), and more negative attitudes toard help-seeking (Gupta, Szymanshi, & Leong, 2011).

Studies within social anxiety research have found that those with social anxiety disorder not only fear negative judgment from others, but they also fear positive evaluation (Bautista & Hope, 2015; Yap, Gibbs, Francis, & Schuster, 2016). Past research on the model minority myth would suggest that socially anxious individuals may fear that they will not meet the expectations derived from a positive stereotype. However, it is also possible that individuals with social anxiety disorder may fear performing in a way that would confirm a positive stereotypes, as socially anxious individuals fear positive evaluation. Future research could elucidate the whether the valence of the stereotype affects its impact on social anxiety.

5.2.3 *Own-Group Conformity Pressure*

Contrada et al. (2001) also described own-group conformity pressures as a form of ethnic-identity stress from within-group expectations for one's behavior, "how 'we' are supposed to behave." Contrada et al. (2001) explains that own-group conformity pressure

involves both internal (i.e. the perception of norms of one's social group) and external influences (i.e. explicit sanctions to deviations from norms and reminders of how 'we' act). It is only moderately associated with stereotype confirmation concerns and ethnic discrimination, therefore it is believed to be a relatively independent construct. Contrada et al. (2001) found that participants experienced conformity pressure about their personal style and interests (i.e. dress a certain way) and their social relationships (i.e. who they should date). Own-group conformity pressure related to gender and race has been associated with lower self-esteem among adolescents (Egan & Perry, 2001; Murray et al., 2012). Own-group conformity pressure has also been found to be associated with lower life satisfaction (Ojeda, Navarro, Rosales Meza, & Arbona, 2012) and less perceived control over one's own emotional and behavioral well-being (French & Chaves, 2010) among Latina/o college students. French and Chaves (2010) also found that the association between own-group conformity pressure and perceived emotional and behavioral control was only significant for those who had high levels of other-group orientation. For those with high levels of other-group orientation, own-group conformity pressure led to lower levels of perceived control. There is also evidence to suggest that components of racial identity and racial socialization affect the impact of own-group conformity pressure on mental health outcomes. Chavez & French (2007) found that racial socialization moderated the relation between own-group conformity pressure and anxiety among Latina/o college students, such that for those with high own-group conformity pressure, those who received high proactive racial socialization experienced greater anxiety than those with low proactive racial socialization. In addition, French, Tran, and Chavez (2013) found that the effect of own-group conformity pressure on anxiety was moderated by private regard for one's ethnic group, such that own-group

conformity pressure predicted anxiety only among participants with low private regard for their ethnic group.

The findings on own-group conformity pressure demonstrate the importance of considering potential interactions with components of social identity and contextual factors. Own-group conformity pressure may relate to fear of negative evaluation in a social interaction with members of one's own social group. As with stereotype confirmation concerns, own-group conformity pressure maybe a variable associated with one's social identities that affects the experience of social anxiety.

5.2.4   *Ethnocultural Allodynia*

Ethnocultural Allodynia is a term coined by Comaz-Diaz & Jacobsen (2001). It refers to a maladaptive hypervigilance to the threat of racism. It is differentiated from a protective awareness and intuition in that it represents extreme reactions to neutral or ambiguous stimuli as a result of exposure racism (Aldarado, 2013). This construct was introduced along with a case study, however it has not been empirically measured or investigated. Previous research has found that those with social anxiety disorder have an interpretation bias in which they perceive neutral stimuli as threatening (Matthews & MacLeod, 2005). Therefore, ethnocultural allodynia may influence this bias for those with social anxiety disorder. Future research should be devoted to developing a measure and testing if any relation exists between these processes.

5.2.5   *Social Group Socialization and Pride*

Although some of these variables represent negative features of experiencing one's social identities in a society with discrimination and inequality, there are many positive aspects of identifying with social groups that are beneficial and protective. Ethnic identity and pride in one's social group (e.g. racial pride as an aspect of racial identity) may be protective factors that

buffer the negative effects of stereotype confirmation concerns. Researchers suggest that the impact of ethnic identity is complicated because social group identity can be a positive resource that protects one from the negative effects of discrimination; however, the importance of one's social group identity to one's sense of self may mean that experiences of discrimination related to that identity have a greater negative impact (Khaylis, Waelde, & Bruce, 2007). Similarly, racial centrality was both a risk factor for discrimination and a protective factor against the negative effects of discrimination on psychological well-being of African Americans (Seller, Caldwell, Schmeelk-Cone, & Zimmerman, 2003).

In addition, research suggests that social group socialization often includes messages of how to handle discrimination related to one's social identity. Having received messages of cultural pride predict less psychological distress for African American college students (Bynum, Burton, & Best, 2007; Neblett, White, Ford, Philip, Nguyen, & Sellers, 2008). These socialization practices may impact a socially anxious individual's response to stereotypes becoming salient in social interactions. Pride in one's social group may be related to lower levels of stereotype confirmation concerns or it may protect against their effects on fear of negative evaluation.

Evaluating the impact of social identities without considering the influence of the social environment is less meaningful. For example, it is possible that when socially anxious individuals are in a social environment in which one social identity becomes more salient because they experience themselves as belonging to an *out-group*, they may experience heightened stereotype confirmation concerns. However, in a social environment in which one social identity becomes more salient because they experience themselves as belonging to an *in-group*, they may experience own-group conformity pressure. As mentioned previously, the

influence of these variables associated with the experience of one's social identities is likely dependent on aspects of one's identification (e.g. the salience, centrality, private and public regard, and ideology of a social identity). It is not only the individual's social identities (i.e. the internal social identities) but also the social identities represented in the social environment (i.e. the external social identities) that impact the salience of a particular identity and may influence the experience of social anxiety. For this reason, it may be useful for future research to assess the impact of both an individual's social identities and those represented in their environment.

There are multiple ways in which the consideration of social identities may be infused into social anxiety disorder research. Researchers may explore the influence of constructs related to the experience of social identities, as described above. Research could also be devoted to individuals of a particular social identity who have social anxiety disorder. This may allow for greater specificity when tailoring treatments to incorporate their experience of social identities. One disadvantage to this approach is that the generalizability of such research may be impaired because of the intersectionality of identities. A treatment designed for African Americans with social anxiety disorder may not equally address the needs of transgendered African Americans or a first generation American whose parents emigrated from Nigeria. The greater the specificity of the treatment approach, the more unique treatments are needed to fit each subgroup or combination of intersecting social identities. A treatment tailored based on one social identity may be inherently limited in its scope, whereas treatment research from an intersectionality perspective may be inherently limited in its specificity. These avenues for investigation can co-occur and inform one another.

As the studies reported in this dissertation suggest, research on social anxiety disorder can be expanded by considering social identities at multiple levels of investigation, including

participant recruitment, collection of information regarding participants' social identities, the reporting of such information, and the hypotheses on how the experience of these social identities affect the cognitive processes and treatment of social anxiety disorder. More broadly, social anxiety researchers would benefit from collaborating with researchers in other areas of psychology to incorporate a larger social lens for the examination how social identities affect the socially anxious individual's perception of the audience and herself.

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