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Assessing the validity of social anxiety disorder subtypes using a nationally representative sample

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ABSTRACT

The purpose of this study was to examine and validate social anxiety disorder subtypes using the nationally representative National Comorbidity Survey Replication ($N = 9282$). Generalized and non-generalized subtypes were defined as fearing at least 8 (i.e., most) and fewer than 7 of 14 possible social situations, respectively, following the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR). Results indicated that in those with social anxiety disorder, the odds of having comorbid major depression, a comorbid anxiety disorder, and suicidal ideation were significantly greater in the generalized subtype. However, differences were no longer significant when adjusting for the number of feared social situations. Results further indicated that the number of feared social situations was significantly associated with comorbid major depression, a comorbid anxiety disorder, and suicidal ideation. These findings call into question the validity of DSM-IV-defined subtypes and provide additional support for the notion that clinicians and researchers should consider viewing this disorder on a single continuum with greater number of feared situations associated with greater clinical severity.

1. Introduction

Social anxiety disorder, also known as social phobia, is a psychiatric disorder marked by persistent fear of one or more social or performance situations in which an individual is at risk for embarrassment, humiliation, or possible scrutiny by unfamiliar persons (American Psychiatric Association, 2000). Since the disorder originally appeared in the DSM-III (American Psychiatric Association, 1980), many studies using both community (e.g., Ruscio et al., 2008) and clinical (e.g., Heimberg, Hope, Dodge, & Becker, 1990) samples have validated its existence and demonstrated that it confers severe impairment. Previous research has also found that nearly two-thirds of those diagnosed with social anxiety disorder have at least one other comorbid psychiatric diagnosis (Ruscio et al., 2008). The past-year prevalence of social anxiety disorder is roughly 8% in American and Canadian populations (Kessler, Stein, et al., 1998; Shields, 2004). Consequently, social anxiety disorder is now considered one of the most commonly occurring mental disorders (Stein, 2006). There is controversy with respect to this common and disabling disorder as to the utility of subtypes to differentiate the less severe (i.e., non-generalized) and more severe (i.e., generalized) forms of the disorder. This study addresses this controversy by investigating comorbid psychopathology between non-generalized and generalized social anxiety disorder thereby assessing the validity of DSM-IV definitions of subtypes within the general population.

Appearance of social anxiety disorder subtypes in diagnostic nomenclature emerged in the revised third edition of the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 1987). Both the DSM-III-R and the DSM-IV define social anxiety disorder as generalized if an individual possesses a fear of 'most social situations,' which can include fearing a combination of public performance situations (e.g., speaking at a meeting or in class) and social interaction situations (e.g., speaking to people of authority). Conversely, the non-generalized subtype refers to a heterogeneous group which includes persons who fear a single performance situation as well as those who fear several, but not most, social situations (American Psychiatric Association, 1994). Absence of a clear operational definition for the two subtypes has led to inconsistent application of subtype definitions within studies and drawn criticism from scholars (e.g., Blöte, Kint, Miers, & Westenberg, 2009; Stein, Torgrud, & Walker, 2000). For example, previous studies have attempted to define the non-generalized subtype objectively by exclusion criteria based on social distress, functional impairment, and number of social fears and found that three clusters or subtypes emerged (Furmark, Tillfors, Stattin, Ekselius, & Frerikson,

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2000). Similarly, Cox, Clara, Sareen, and Stein (2008) factor analyzed feared social situational domains and found a three-factor pattern of public speaking, social interaction, and observational fears. Generalized and non-generalized subtypes were differentiated by the types of fears endorsed. Results indicated that those with the generalized subtype were more likely to endorse social interaction and observational fears than those with the non-generalized subtype.

On the other hand, the non-generalized subtype is often referred to as a 'specific subtype' that describes fear of a specific social situation, most often public speaking (Furmark et al., 2000; Kessler, Stein, et al., 1998; Turner, Beidel, & Townsley, 1992). Consequently, the literature frequently identifies public speaking as being exclusively representative of the non-generalized subtype. Some researchers suggest that public speaking should be a specific subtype beyond generalized and non-generalized subtypes (Blöte et al., 2009). Non-generalized social anxiety disorder has also been defined generally as endorsing performance fears (e.g., Hughes et al., 2006) rather than a specific social situation (e.g., public speaking).

Stein et al. (2000) attempted to develop an empirically based taxonomy of social anxiety disorder subtypes based on the number and content of symptoms using community surveys from two Canadian cities. These researchers were unable to find suitable definitions of the subtypes that would distinctly define them. Instead, they found that as the number of feared social situations increased, impairments in multiple domains (e.g., school functioning, occupation, and personal life) increased in a linear fashion. Such increase implies that generalized social anxiety disorder is the more severe subtype associated with a greater number of fears. Similarly, Ruscio et al. (2008) used factor analysis to identify social anxiety disorder subtypes and examined their association with psychiatric comorbidity, role impairment, and treatment seeking and found evidence for unidimensionality rather than having specific subtypes. However, these researchers did not investigate suicidality nor did they directly examine the validity of the current subtyping arrangement proposed by the DSM-IV (i.e., defining the generalized subtype according to a fear of most social or performance situations).

Although researchers have struggled to identify and agree upon distinct subtypes of social anxiety disorder, the trend has been to continue to define 'generalized' social anxiety disorder as the more severe subtype and adhere to the definition of those individuals fearing 'most social situations' without consensus as to what 'most' refers to. Nevertheless, clinicians and researchers continue to differentiate between generalized and non-generalized social anxiety disorder due to differences in their presentations and approaches to treating them. Moreover, some differences exist in comorbid pathology and impairment between these subtypes. In a meta-analysis investigating severity of social anxiety disorder, Kessler (2003) found that half of all individuals in the National Comorbidity Survey who were diagnosed with social anxiety disorder exhibited the generalized subtype and these individuals had significantly greater role impairment in their everyday lives than those with the non-generalized subtype. Community studies have also shown that individuals who met requirements for generalized social anxiety disorder displayed an earlier age of onset, higher symptom persistence, and greater comorbidity with other DSM-IV mental disorders (e.g., PTSD, dysthymia) than those with the non-generalized subtype (Chavira, Stein, Bailey, & Stein, 2004; Wittchen, Stein, & Kessler, 1999). Moreover, patients with the generalized subtype tend to be more anxious and depressed, less likely to be employed, and less likely to express positive thoughts than the non-generalized subtype (Heimberg et al., 1990). Conversely, other researchers have found that anxiety does not significantly differ between the subtypes (Hughes et al., 2006). This contradiction in regards to anxiety is likely due to differences in defining features of social anxiety disorder subtypes within these studies.

There are several limitations to much of the existing literature that has attempted to differentiate non-generalized from generalized social anxiety disorder. First, many studies have relied on small clinical and community samples. Doing so is problematic because many individuals with social anxiety delay seeking professional help or fail to do so altogether, perhaps because of the tendency to dismiss their anxiety as mere shyness (Keller, 2003; Magee, Eaton, Wittchen, McGonagle, & Kessler, 1996; Stein, 1996). As a result, treatment-seeking clinical samples tend to exhibit more serious symptomatology and therefore likely over-represent those with the more severe, generalized subtype. In addition, research with community samples has often examined specific groups of individuals, such as college students, who are not representative of the population. Perhaps as a result of these limitations, clinical and community samples vary substantially in estimates of the prevalence of social anxiety disorder (Stein, Walker, & Forde, 1994) and associated psychopathology between the subtypes. A second limitation of past research is the dearth of literature examining comorbid suicidality between subtypes. Generally, social anxiety disorder (subtype not specified) has been associated with an increased risk of suicidal ideation (Schneier, Johnson, Hornig, Liebowitz, & Weissman, 1992) and suicide attempts (Davidson, Hughes, George, & Blazer, 1993). An investigation of individuals with generalized social anxiety disorder in a managed care setting found that 21.9% attempted suicide, which is similar to rates found in individuals with major depression (Katzelnick et al., 2001). However, subtype differences in suicidality have not been investigated using either clinical samples or a nationally representative sample. A final limitation is that researchers have tended to identify and define subtypes based on statistical procedures such as factor analysis. Clinicians, on the other hand, define subtypes based on the definitions that currently exist in the DSM-IV. It is therefore important for clinical purposes to examine the validity of DSM-IV criteria of social anxiety disorder subtypes.

The primary objective of this study is to investigate validity of the DSM-IV-defined social anxiety disorder subtypes by comparing their severity in terms of comorbid psychopathology and suicidality. We hypothesize that the generalized subtype will exhibit greater comorbidity with suicidal ideation, suicide attempts, lifetime depression, and any lifetime anxiety disorder than the non-generalized subtype in a sample of individuals with lifetime social anxiety disorder.

2. Method

2.1. Sample

The National Comorbidity Survey Replication (NCS-R; Kessler et al., 2004) is a nationally representative survey of 9282 English speaking respondents aged 18 years or older in the coterminous United States. The purpose of the survey, which was conducted between February 2001 and December 2003, was to examine the prevalence and correlates of mental disorders. Participants were selected using a multistage clustered area probability sample of households. The response rate was 70.9%. The current study examined those respondents who met criteria for lifetime social anxiety disorder ($N = 1143$).

Professional interviewers from the Institute for Social Research at the University of Michigan, Ann Arbor carried out face-to-face interviews. The NCS-R demonstrated good diagnostic inter-rater reliability (Kessler, Berglund, Demler, Jin, & Walters, 2005). Further description of the NCS-R field procedure appears elsewhere (Kessler et al., 2004).