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EVALUATION OF THE PROPOSED SOCIAL ANXIETY DISORDER SPECIFIER CHANGE FOR DSM-5 IN A TREATMENT-SEEKING SAMPLE OF ANXIOUS YOUTH

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Abstract

Background—The current proposal for the DSM-5 definition of social anxiety disorder (SAD) is to replace the DSM-IV generalized subtype specifier with one that specifies fears in performance situations only. Relevant evaluations to support this change in youth samples are sparse.

Methods—The present study examined rates and correlates of the DSM-IV and proposed DSM-5 specifiers in a sample of treatment-seeking children and adolescents with SAD (N = 204).

Results—When applying DSM-IV subtypes, 64.2% of the sample was classified as having a generalized subtype of SAD, with the remaining 35.2% classifying as having a nongeneralized subtype SAD. Youth with generalized SAD, relative to those with nongeneralized SAD, were older, had more clinically severe SAD, showed greater depressive symptoms, and were more likely to have a comorbid depressive disorder. No children in the current sample endorsed discrete fear in performance situations only in the absence of fear in other social situations.

Conclusions—The present findings call into question the meaningfulness of the proposed changes in treatment-seeking youth with SAD.

Keywords

anxiety disorders; children; classification; diagnosis; diagnostic and statistical manual of mental disorders; DSM-5

Social anxiety disorder (SAD) is one of the most common mental disorders affecting the general population,[1] with almost one in 10 individuals suffering from SAD at some point in their lifetime before even reaching young adulthood.[2] Onset typically occurs in childhood or early adolescence,[3] during which time SAD diagnosis is associated with loneliness, dysphoria, poor social effectiveness, nicotine use, and increased peer victimization.[4–7] Left to its natural course, SAD is associated with chronicity, multiple

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functional impairments, increasing comorbidity, and reduced health-related quality of life.[8, 9]

SAD criteria have shifted across the past few decades as research on SAD phenomenology has progressed. The disorder was initially classified in DSM-III as a type of phobic reaction to a specific social situation akin to a specific phobia.[10] With the advent of DSM-III-R and DSM-IV,[11, 12] diagnostic criteria for the disorder underwent significant changes. As it became clear that many individuals meeting criteria for social phobia experienced anxiety related to several varied social situations, the specifier "generalized" was introduced to the formal nosology to describe persons experiencing social fears in "most or all" situations. The label "social anxiety disorder" was introduced in DSM-IV to connote a more pervasive and interfering condition than implied by the label "social phobia" and the limited DSM-III diagnostic definition.[13] Individuals endorsing only a circumscribed or limited number of social fears began to be classified as showing a "non-generalized" presentation of the disorder. Generalized and nongeneralized SAD subtypes have been distinguished in several studies of adults using varied methodologies,[14–17] and in clinical studies of youth.[18] Broadly speaking, generalized SAD has consistently been linked with clinical severity of diagnosis, and the generalized subtype assignment has come to characterize individuals with more severe disorder presentations.[19]

Despite documented distinctions in severity between generalized and nongeneralized SAD, the validity and clinical utility of the generalized and nongeneralized specifiers have been the subject of criticism. The DSM advises to assign a "generalized subtype" if a person fears "most or all" social situations. Given imprecision in the wording of the DSM, subtype definitions have been inconsistently applied across studies, making it difficult to meaningfully compare findings.[19]

Given dissatisfaction with the limitations of the "generalized" specifier, it has been suggested that basing subtypes on thematic fear content rather than on quantity of fears may provide a more meaningful distinction with which to base future research and treatment development.[20] As publication of the DSM-5 approaches, one key area for proposed SAD definition change concerns the removal of the "generalized" SAD specifier, and in its place including a "performance only" SAD specifier.[20] This proposed specifier based on the thematic content of social fears would be utilized to identify those individuals whose "fear is restricted to speaking or performing in public." Empirical work with adults has demonstrated that compared with other content areas, performance or public speaking fears most often occur in the absence of other social fears.[21, 22] Some research has supported the distinction between performance or public speaking fears from more widespread social fears among adults on a variety of measures, ranging from clinician-rated severity and temperamental vulnerability factors to psychophysiological reactivity during stressful tasks.[23]

Although empirical work has shown some support for the proposed specifier change in adult samples, relevant evaluations in youth are sparse and have not necessarily supported the proposed inclusion of a performance-only specifier for DSM-5 SAD. Recent epidemiological work in the U.S. population using data from the National Co-morbidity

Survey-Adolescent Supplement found only 0.8% of adolescents meeting criteria for SAD could be classified as having the performance-only SAD,[2] calling into question the relevance of the specifier with regard to youth. In contrast, 55.8% and 44.2% of SAD adolescents were classified as having generalized and nongeneralized presentations, respectively. Epidemiological work with youth and young adults in Europe, by contrast, has shown some support for the utility of a performance-only SAD subtype. Specifically, Knappe and colleagues[24] examined German youth and young adults ages 14–24 in the Early Developmental Stages of Psychopathology study and found roughly one third of those with SAD showed exclusively performance-based presentations. These performance-oriented SAD cases showed lower behavioral inhibition and clinical severity, although the inclusion of individuals up to the age of 24 limits the extent to which these findings can be interpreted as applying specifically to youth populations. Regardless, although findings from the National Co-morbidity Survey-Adolescent Supplement and the Early Developmental Stages of Psychopathology can inform our understanding of SAD presentation in the general population, such epidemiologic work does not speak to treatment-seeking youth. Much remains to be learned about the nature and prevalence of isolated performance fears in the population of youth-seeking treatment for SAD.

The present study evaluated patterns and correlates of the DSM-IV and proposed DSM-5 SAD specifiers in an outpatient treatment-seeking sample of children and adolescents. Specifically, to examine the clinical relevance of each subtype, we examined the percentage and clinical correlates of SAD youth showing generalized, nongeneralized, and performance-only presentations.

METHODS

PARTICIPANTS

Participants included 204 consecutive treatment-seeking youth meeting diagnostic criteria for DSM-IV SAD and their parents, presenting for services at a university-affiliated center for the treatment of anxiety and related disorders in Boston, USA (2004–2012). Children (57.4% female) ranged in age from 6 to 19 years (M_{age} = 13.0, SD_{age} = 3.4); 77.9% self-identified as non-Hispanic Caucasian. Families ranged in resources: 19.6% were at or below 300% of the national poverty line for their year (e.g., in 2007 $63,609 for a family of 4; $75,240 for a family of 5) whereas 11.3% of households earned at least 600% of the national poverty line at their year of assessment (e.g., in 2007 $127,218 for a family of 4; $150,480 for a family of 5). Parents of the majority of children were married or cohabitating (80.4%); 16.7% of children's parents were previously but no longer married, and 2.9% were never married. Regarding psychotropic medications, 23.5% of youth were taking antidepressant medication, 6.9% were taking stimulant or other ADHD medication, 6.4% were taking an antipsychotic medication, 5.4% were on taking a sedative or hypnotic medication, and 3.4% were taking a mood stabilizer. SAD youth met additional diagnostic criteria for comorbid DSM-IV generalized anxiety disorder (42.2%), separation anxiety disorder (15.7%), specific phobia (13.2%), major depressive disorder (11.3%), obsessive–compulsive disorder (9.3%), attention-deficit hyperactivity disorder (8.8%), panic disorder with or without agoraphobia (7.8%), dysthymic disorder (5.4%), depressive disorder NOS (4.4%), selective mutism

(2.9%), oppositional defiant disorder (2.9%), or posttraumatic stress disorder (0.5%). The mean number of mental disorders among SAD youth was 2.3 (*SD* = 1.2).

MEASURES

Anxiety Disorders Interview Schedule for Children and Parents for DSM-IV (ADIS-C/P)—The ADIS-C/P[25] is a semistructured diagnostic interview that assesses child psychopathology in accordance with DSM-IV criteria, with particularly thorough coverage of the internalizing disorders. The ADIS-C (child version) and the ADIS-P (parent version) collect data on children's and parents' reports of child anxiety, respectively. Child and parent diagnostic profiles are integrated into a composite diagnostic profile using the "or rule" at the diagnostic level, in which a diagnosis is included in the composite profile if either the parent(s) *or* child endorsed sufficient diagnostic criteria for that disorder. Diagnoses are assigned a clinical severity rating (CSR) ranging from 0 (no symptoms) to 8 (extremely severe symptoms), with CSRs of 4 or above used to characterize disorders that meet full diagnostic criteria and CSRs of 3 and below used to characterize subthreshold presentations. The ADIS-IV-C/P was also used to classify SAD youth into DSM-IV and proposed DSM-5 subtypes (see SAD Youth Subclassification, below).

The ADIS-C/P has been the most widely used diagnostic interview in clinical research evaluating child anxiety, likely due to its strong reliability, validity, and sensitivity to change,[26, 27] and in research evaluating SAD specifically.[28] In age ranges comparable to those of the present sample, the interview has demonstrated good reliability for parent (κ range from 0.65 to 0.88) and child diagnostic profiles (κ range from 0.63 to 0.88).[26, 29] Diagnostic reliability was strong in the present sample (κ for all anxiety disorders ≥ 0.70).

Children's Depression Inventory (CDI)—The CDI[30] is a widely used self-rating scale of depressive symptomatology in children. For each item, the child is asked to endorse one of three statements that best describes how he or she has typically felt over the past 2 weeks (e.g., "I am sad once in a while," "I am sad many times," or "I am sad all the time"). Each response is scored as either 0 (asymptomatic), 1 (somewhat symptomatic), or 2 (clinically symptomatic), contributing to an overall CDI score that can range from 0 to 54. The scale has demonstrated excellent internal consistency in both clinical and nonclinical samples (α 0.80),[31–33] and acceptable test–retest reliability identified in both clinical and nonclinical samples.[30, 34–36] Internal consistency was high in the present sample (α 0.89). Research supports the use of the CDI as a continuous measure of depressive symptomatology in anxious youth.[37]

PROCEDURE

Participants were recruited from a university-affiliated outpatient center for the treatment of emotional disorders in Boston, USA. Families completed an initial telephone screening as part of clinic procedures. Children were excluded with current psychotic symptoms, suicidal or homicidal risk requiring crisis intervention, two or more hospitalizations for severe psychopathology (e.g., psychosis) within the previous 5 years, or moderate to severe intellectual impairments. Children on psychotropic medications were required to be stabilized at least 1 month on current dose prior to participation. Participating families were

administered the ADIS-C/P and children completed the CDI as part of a prescreening battery for treatment. After obtaining informed consent, a diagnostician conducted separate child and parent interviews, and then integrated diagnostic profiles using the "or rule" to generate a composite diagnostic profile.[38] For each case, interview material was presented and reviewed at a weekly diagnostician staff meeting, during which time symptoms were reviewed and a team consensus on the diagnostic profile was obtained. Consistent with ADIS-C/P guidelines, diagnoses were generated in strict accordance with DSM-IV. Diagnosticians included a panel of 22 clinical psychologists, postdoctoral associates, and doctoral candidates specializing in the assessment and treatment of pediatric anxiety disorders. All diagnosticians met internal certification and reliability procedures, developed in collaboration with one of the ADIS-C/P authors: observing three complete interviews, collaboratively administering three interviews with a trained diagnostician, and conducting supervised interviews until achieving the reliability criterion (i.e., full diagnostic profile agreement on three of five consecutive supervised assessments). Demographic information was obtained from parent report. As in previous research,[39] household income was used to compute a poverty index ratio (i.e., household income divided by U.S. poverty threshold in the interview year), resulting in four index ratio categories: <1.5; 1.5 < 3.0; 3.0 to < 6.0; and ≥ 6.0.

SAD Youth Subclassification—Among SAD youth, children were further classified into subtypes: (1) those exhibiting DSM-IV generalized SAD; (2) those exhibiting DSM-IV nongeneralized SAD; and (3) those exhibiting DSM-5 performance-only SAD. Generalized SAD was assigned by diagnosticians in accordance with DSM-IV—after consultation with the full diagnostic panel in a weekly staff meeting—to reflect cases in which the fears included most situations (e.g., initiating or maintaining conversations, participating in small groups, dating, speaking to authority figures, attending parties). Cases that were not assigned a generalized subtype were assigned a non-generalized subtype of SAD. Agreement in the classification of generalized versus nongeneralized SAD was very high among diagnosticians ($\kappa = 0.82$).

To identify individuals meeting criteria for the performance subtype of SAD, a panel of doctoral-level experts from two leading pediatric anxiety disorders clinics ($N = 7$) examined each of the ADIS-C/P SAD items. Panelists were provided with the DSM-5 Development working definition for SAD performance-only subtype (i.e., "the fear is restricted to speaking or performing in public") and independently rated whether they believed each of the 22 social situations assessed in the ADIS-C/P SAD module should be included as a "speaking/performance" symptom (see Table 1). Social situations on which at least five of the seven panelists agreed characterized speaking or performing in public were carried forward to define youth with a performance subtype of SAD. This subtype was defined as SAD cases in which (1) at least one of these speaking/performance symptoms was endorsed with a fear rating of 4 or above (on the ADIS-C/P 0–8 fear scale), and (2) none of the remaining SAD symptoms assessed in the ADIS-C/P were endorsed with a fear rating of 4 or above.

RESULTS

EVALUATING THE DSM-IV GENERALIZED VERSUS NONGENERALIZED SAD SUBTYPING

Almost twice as many SAD youth were classified as showing generalized (N = 131, 64.2%) versus nongeneralized (N = 73, 35.8%) subtype. Generalized and non-generalized SAD youth did not differ with regard to gender, race/ethnicity, psychotropic medication status, or number of clinical diagnoses (see Table 2). Generalized SAD youth were significantly older than nongeneralized SAD youth, showed greater SAD clinical severity, and exhibited higher levels of depressive symptomatology. Linear regression using SAD subtype to predict these clinical variables found the association between SAD subtype and SAD clinical severity persisted after controlling for child age [B = 0.62, SE(B) = 0.12, β = 0.31, t = 5.12, P < .001], whereas the association between SAD subtype and depressive symptomatology did not [B = 2.36, SE(B) = 1.34, β = 0.12, t = 1.76, P = .08]. Relative to nongeneralized SAD youth, a significantly higher proportion of generalized SAD youth presented with a comorbid DSM-IV depressive disorder (i.e., major depressive disorder, dysthymic disorder, or depressive disorder not otherwise specified). Logistic regression using SAD subtype to predict the presence of a comorbid depressive disorder found this association retained significance after controlling for child age: [B = 1.17, SE = .49, Wald = 5.81, df = 1, Exp(B) = 3.22, P = .02].

EVALUATING THE PERFORMANCE-ONLY SPECIFIER PROPOSED FOR DSM-5

Evaluation of panelists' ratings yielded seven speaking/performance items with which to define the performance subtype of SAD (see Table 1). Almost every SAD case endorsed symptoms from this list (N = 191, 93.6%). However, all of these cases also endorsed symptoms from the remaining list of 15 SAD symptoms that did not comprise the speaking/performance symptom set. Accordingly, no SAD cases in the present sample (0%) were classified as meeting the criteria for the performance subtype of SAD.

DISCUSSION

To evaluate the current DSM-5 proposal for specifier change in the SAD definition, we evaluated patterns and correlates of the generalized, nongeneralized, and performance-only presentations of SAD in a large outpatient sample of anxious youth. Although our results provide some support for the DSM-IV distinction between generalized and nongeneralized SAD presentations, findings do not support the clinical relevance of the proposed performance subtype of SAD in treatment-seeking youth. DSM-IV generalized and the residual nongeneralized categories captured roughly two thirds and one third of SAD youth, respectively, and distinguished SAD youth with regard to clinical severity of SAD and comorbid depressive disorders. In contrast, no SAD youth were classified as showing the proposed performance-only SAD subtype. These findings from a treatment-seeking sample are consistent with general population research showing that less than 1% of SAD adolescents exhibit performance-only presentations, whereas over half of SAD adolescents exhibit generalized SAD presentations that are linked with higher SAD severity and stronger associations with comorbid psychopathology.[2] Collectively, these findings call into

question the relevance and clinical utility of the proposed DSM-5 performance-only specifier in youth populations.

Several factors may help to explain the absence of the SAD performance subtype in the current sample. First, it seems likely that the performance subtype as presently defined is truly rare in youth. Past research suggests that performance-related fears have a higher age of onset than more generalized interactional and observational social fears.[15, 24] Indeed, in the present sample, rates of endorsement for some of the performance subtype symptoms were significantly higher among youth ages 12 and above than youth ages 6–11. For example, 62.5% of SAD youth ages 12 and older endorsed “inviting a friend to get together” as a scenario that causes them significant anxiety compared with only 31.8% of SAD youth ages 6–11 [X^2 (1) = 16.05, P = 000]. As Bögels and colleagues have suggested,[20] age-related differences may reflect the fact that most individuals are not expected to “perform” or undergo formal evaluations in public until at least the adolescent years. The absence of performance opportunities may therefore render it difficult for children to qualify for a performance-only subtype of SAD. However, SAD youth in the present study did endorse several performance fears; rather, it was the requirement that children not endorse the remaining nonperformance social fears that prevented classification of this subtype. Nonetheless, if DSM-5 does adopt the proposed performance-only SAD specifier, it will be critical to clarify how “performance” may be defined differently across different stages of development. Given the imaginary audience phenomenon that may characterize social cognition in adolescence,[40] classifying SAD presentations in adolescents based on the endorsement of “performance only” situations may be particularly problematic.

Second, the present findings may reflect that children and adolescents with primarily performance fears are less likely to seek treatment for their symptoms than those whose social anxiety pervades many thematic domains. This would be consistent with previous findings with older individuals showing the performance subtype of SAD is associated with lower severity of diagnosis, lower rates of comorbidity, and lower self-reported levels of impairment than generalized SAD.[24] It may be that performance fears are rarely interfering enough at this developmental stage for youth and their families to seek intervention. However, should this be the case, the absence of treatment-seeking behavior among youth with the performance subtype of SAD itself calls into question the clinical utility of incorporating the proposed performance subtype specifier of SAD. Moreover, previously noted epidemiological work by Merikangas and colleagues[2]—which provides data on prevalence and correlates of disorder that are not influenced by rates of treatment-seeking—found that less than 1% of adolescents with SAD in the general U.S. population show performance-only presentations,[2] suggesting that only two cases with a performance subtype of SAD would be expected in the present sample in the absence of a treatment-seeking sampling bias. Not only are individuals with the performance subtype of SAD not presenting for treatment, but they remain elusive in the general population, as well.

The DSM-5 aims to maintain continuity with previous editions of the manual whenever possible so as not to overburden clinicians unnecessarily.[41] Additionally, each DSM iteration brings renewed efforts to refine diagnostic criteria in a manner that is developmentally sensitive and applicable across the lifespan. With the upcoming publication

of the DSM-5, the importance of increasing the developmental focus of the manual has never been more salient,[42] with the goal to integrate explicit descriptions of developmental manifestations of disorders into the manual, and include these descriptions as part of criteria for each disorder. Given the lack of empirical support regarding a performance subtype of SAD in clinic-based and general population samples, we believe that is premature to include the proposed performance-only specifier, as presently described, in the DSM-5 SAD definition.

The present findings should be interpreted with a number of potential limitations in mind. First, given the study took place in a university-based outpatient clinic specializing in the treatment of anxiety disorders in a major metropolitan city, the findings may not be representative of youth presenting for treatment in other settings, or in the general population. Second, many children in the sample were being managed on various psychotropic medications, which may have impacted observed symptom and diagnostic presentations. Third, although we found support for an association between generalized SAD and illness severity and comorbidity, the assessments administered in the present sample do not permit examination of key factors that might help clarify the extent to which differences between subtypes reflect qualitative differences or simply differences in severity. Future work is needed to examine the extent to which distinct subtypes are associated with differences in biomarkers, family history, treatment response, and other important clinical variables. Finally, in the absence of specific guidelines dictating how to define “performance only,” our method of classifying participants as meeting criteria for the performance subtype of SAD was based upon consensus across the ratings of a small expert panel of diagnosticians. Therefore, our operational definition of “performance only” may differ from other operational definitions of “performance only.” This may, however, reflect a larger limitation with regard to the reliability of the performance subtype specifier of SAD as presently described—in the absence of specified sets of feared situations that would constitute the performance subtype of SAD, matters of reliability may prove to be a more fundamental concern than matters of clinical utility. As such, the incremental utility of the proposed DSM-5 SAD specifier over the existing DSM-IV SAD specifier can be called into question.

CONCLUSION

Although it has been argued that adoption of a performance-only specifier in DSM-5 is empirically supported by work with adults,[20, 23] the current clinic-based investigation is consistent with general population research[2] in failing to support the proposed SAD specifier change for children and adolescents. Potential explanations for these findings include a potential later age of onset of the performance subtype and the developmental relevance of performance-based fears, differences in treatment-seeking behaviors across subtypes, and imprecision in the definition of the new subtype. Future research is needed to elucidate the contributions of each of these factors. Prudence would suggest SAD definition changes should be restricted to only the very minimum number of revisions necessary to offer clear improvements over existing criteria sets. The present analysis suggests that with regard to treatment-seeking children and adolescents, the proposed SAD specifier change does not offer a clear improvement.

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TABLE 1

Symptoms assessed by the ADIS-C/P that comprise the performance-only subtype of social anxiety disorder

1	Answering questions in class
2	Giving a report or reading aloud in front of the class
3	Asking the teacher a question or for help
4	Writing on the chalkboard
5	Musical or athletic performances
6	Inviting a friend to get together
7	Speaking to adults

Note: The performance-only subtype of social anxiety disorder was defined as cases in which (1) a child met diagnostic criteria for social anxiety disorder, (2) at least one of the above symptoms were endorsed with a fear rating of 4 or above, and (3) none of the remaining social anxiety disorder symptoms assessed in the Anxiety Disorders Interview Schedule for Children were endorsed with a fear rating of 4 or above.

TABLE 2

Demographic and clinical differences between cases of DSM-IV SAD with nongeneralized and generalized subtypes

	DSM-IV SAD cases (N = 204)				
	DSM-IV nongeneralized subtype (n = 73)		DSM-IV generalized subtype (n = 131)		
	N	%	*N*	%	Significance test
Gender					
Male	29	39.7	58	44.3	
Female	44	60.3	73	55.7	$\chi^2(1, N = 204) = 0.40, P = .32$
Race/Ethnicity					
Non-Hispanic	55	75.3	104	79.4	
Caucasian					
Minority	18	24.7	27	20.6	$\chi^2(1, N = 204) = 0.45, P = .31$
Depressive disorder diagnosis					
Present	6	8.2	36	27.5	
Absent	67	91.8	95	72.5	$\chi^2(1, N = 204) = 10.6, P = .001$
Psychotropic medication					
Present	17	23.3	42	32.1	
Absent	56	76.7	89	67.9	$\chi^2(1, N = 204) = 1.8, P = .12$
	M	*SD*	*M*	*SD*	
Age	12.1	3.1	13.5	3.4	$t(202) = -2.92; P = .004$
SAD clinical severity rating	4.8	0.8	5.5	0.9	$t(202) = -5.96; P < .001$
No. of clinical diagnoses	2.4	1.2	2.3	1.1	$t(202) = 1.01; P = .31$
Children's Depression Inventory	10.2	7.5	13.7	9.6	$t(174) = -2.44; P = .02$

SAD, social anxiety disorder.