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The impact of comorbidity profiles on clinical and psychosocial functioning in childhood anxiety disorders

Carly J. Johnco [a,*], Alison Salloum [b], Adam B. Lewin [a,c,d], Nicole M. McBride [a], Eric A. Storch [a,c,d,e,f,g]

[a] Department of Pediatrics, University of South Florida, Tampa, FL, USA
[b] School of Social Work, University of South Florida, Tampa, FL, USA
[c] Department of Psychiatry & Behavioral Neurosciences, University of South Florida, Tampa, FL, USA
[d] Department of Psychology, University of South Florida, Tampa, FL, USA
[e] Rogers Behavioral Health – Tampa Bay, Tampa, FL, USA
[f] All Children's Hospital – Johns Hopkins Medicine, Saint Petersburg, FL, USA
[g] Department of Health Policy and Management, University of South Florida, Tampa, FL, USA

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ABSTRACT

Despite the high rates of comorbidity in pediatric anxiety disorder samples, there are few studies that systematically examine differences in clinical and psychosocial functioning between different comorbidity profiles. Those that have, typically combine youth with comorbid conduct problem and those with comorbid ADHD, despite likely differences in the etiology and course of these conditions. This study compared the profile of children with a primary anxiety disorder without comorbidity to those with different comorbidity profiles in a treatment-seeking sample of 111 children recruited from community mental health settings. Anxiety severity and depressive symptomatology did not vary by comorbidity profile. Anxious children without comorbidity had lower levels of attention problems, rule breaking, aggressive and externalizing behaviors compared to the comorbid ADHD and comorbid conduct problems groups, as well as lower levels of functional impairment and social problems. There were some differences in clinical phenomenology and psychosocial functioning between the comorbid ADHD and comorbid conduct problems groups, with the conduct problems group having higher levels of rule breaking, aggressive and externalizing behaviors, as well as higher levels of functional impairment, providing preliminary evidence of separate clinical profiles.

1. Introduction

With prevalence rates ranging between 2.5% and 6.5% (Costello et al., 2003; Polanczyk et al., 2015) anxiety disorders are one of the most common and impairing mental health issues in childhood (Langley et al., 2004; Rapee et al., 2009). Clinical studies of pediatric anxiety disorders typically include youth with heterogeneous comorbidities; some with a single anxiety disorder diagnosis, some with comorbid anxiety disorders, some with externalizing comorbidities ranging from Attention Deficit Hyperactivity Disorder (ADHD) to Conduct Disorders (CD), and others with depressive symptoms. High rates of comorbidity are documented in studies of pediatric anxiety disorders (Beidel et al., 2007; Ollendick et al., 2008; Kendall et al., 2010), and it is has been suggested that different comorbidity profiles may represent distinct constructs or syndromes. Understanding the clinical and psychosocial profile of youth with different comorbidity patterns has implications for understanding the etiology of different profiles, and the intervention implications. There are few studies that systematically examine differences between comorbidity profiles, and those that have compared comorbidity profiles have tended to use methods that compare the presence/absence of comorbidity, the number of comorbidities, or group externalizing comorbidities with attentional disorders, potentially obscuring the impact of different clinical profiles (Ollendick et al., 2008). Theoretical models of comorbidity rely on the validation and discrimination of different profiles (Cantwell, 1992). External validation of comorbidity profiles, including differentiating the phenomenology and functional impact, is important for correcting and validating psychiatric diagnostic nosology, as well as for informing our understanding of the etiology, course and treatment of pediatric anxiety disorders (Angold et al., 1999; Drabick et al., 2010).

There have been several studies that have examined the

* Correspondence to: University of South Florida, Department of Pediatrics, Rothman Center for Neuropsychiatry, 880 6th Street South Suite 460 Box 7523, Child Development & Rehabilitation Center, St. Petersburg, FL 33701, USA.
E-mail address: cjohnco@health.usf.edu (C.J. Johnco).

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differential impact of anxiety disorders without comorbidity compared to anxiety disorders with comorbidities. In terms of demographic features, one study found that anxious youth without comorbidity (i.e. those with a single anxiety disorder) were younger that those with comorbid depression (Strauss et al., 1988), although other studies have failed to find any age difference in comparison to those with comorbid anxiety disorders, depression, externalizing behaviors and substance use disorders (Lewinsohn et al., 1995; Franco et al., 2007). In terms of their clinical profile, anxious youth without comorbidity showed a less severe clinical profile in comparison to those with comorbid anxiety disorders, depressive and externalizing disorders, including less severe anxiety symptomology, fear severity and internalizing symptoms, and were less likely to have attempted suicide or have received previous psychiatric treatment in comparison to those with comorbid depression, substance use or disruptive behaviors (Strauss et al., 1988; Franco et al., 2007; Guberman and Manassis, 2011). In addition to the less severe clinical profile, those without comorbidity appear to have better adaptive functioning, being more involved in extracurricular activities, having better peer relationships and better academic performance in comparison to those with comorbid externalizing or depressive disorders, although no difference was found compared to those with a comorbid anxiety diagnosis (Lewinsohn et al., 1995; Franco et al., 2007).

When comorbidity is examined as a predictor of treatment outcome, results are mixed. Some studies have not found any difference in treatment response between anxious youth without comorbidity, those with comorbid anxiety disorders and comorbid non-anxiety disorders (Kendall et al., 1997; Kendall et al., 2001; Rapee, 2003; Ollendick et al., 2008). Others have found worse treatment response and remission amongst those with comorbid disorders in comparison to those without (Storch et al., 2008; Liber et al., 2010; Ginsburg et al., 2011b), especially in relation to comorbid depressive disorders (Berman et al., 2000). In fact, several studies have found poor functioning amongst those with comorbid depressive disorders. Those with comorbid depressive disorders appear to have a particularly severe clinical profile with higher depressive symptomology in comparison to those with a pure anxiety disorder, comorbid externalizing behaviors and comorbid anxiety disorders and similar levels of externalizing behaviors in comparison to those with comorbid externalizing diagnoses (Franco et al., 2007; Guberman and Manassis, 2011). Youth with comorbid externalizing and depressive disorders appear to have similarly poor levels of psychosocial functioning in comparison to youth with anxiety profiles, with less involvement in extracurricular activities, and poorer peer and academic functioning (Franco et al., 2007). Rapee et al. (2013) found that comorbid disorders did not affect the rate of improvement during treatment; however, those with comorbid disorders, especially depressive disorders, tended to have a more severe presentation to begin with, and as such, did not reach an equivalent endpoint after treatment.

Overall, there appears to be evidence suggesting that anxious youth without comorbidity (and to a certain extent, those with comorbid anxiety disorders) show less severe clinical symptomology and better psychosocial functioning than those with comorbid externalizing and depressive disorders, and some evidence suggesting that increased severity inherent with comorbidity may affect clinical endpoint (but not response); however, there are two methodological limitations that support replication and extension of current findings. Firstly, most studies that have examined comorbidity profiles in pediatric anxiety disorders (e.g., Lewinsohn et al., 1995; Franco et al., 2007) have combined comorbid ADHD and conduct problems (Oppositional Defiant Disorder (ODD) and CD), obscuring a true understanding of either pattern of comorbidity (Cunningham and Ollendick, 2010). Many children with ADHD will misbehave unintentionally because they cannot control their impulses, while misbehavior in ODD or CD is characterized by more purposeful defiance or disobedience in response to authority figures. Attentional difficulties, compared to conduct difficulties, may have differential impact on clinical and psychosocial profiles in anxious youth, and may influence illness course during treatment; however, there are currently no studies that systematically examine the differential role of comorbid ADHD and conduct problems in pediatric anxiety disorders (Cunningham and Ollendick, 2010). Secondly, the majority of existing comorbidity studies have utilized samples recruited from specialized anxiety research clinics. Studies vary in their findings about whether youth in community mental health settings present with similar (Southam-Gerow et al., 2003) or higher levels of anxiety symptoms (Villabø et al., 2013). However, overall, findings suggest that youth presenting to community mental health clinics tend to have higher rates of comorbid externalizing problems (particularly conduct problems) than those from research clinics, and are more likely to come from lower-income and single-parent families (Southam-Gerow et al., 2003; Villabø et al., 2013). Replicating existing results in a community-based sample is important to generalize findings across settings, adding to the external validity of comorbidity profiles. In addition, extending group comparisons to examine comorbid ADHD and conduct problem profiles separately is important for theoretical models of comorbidity and diagnosis, given the potentially different etiology of these disorders (Cunningham and Ollendick, 2010; Drabick et al., 2010).

The aim of this study was to firstly compare the demographic, clinical and psychosocial profiles of anxious youth without comorbidity and those with four different comorbidity profiles (comorbid anxiety disorders, comorbid depression, comorbid ADHD, and comorbid conduct [ODD or CD] problems) within a treatment-seeking sample of youth in community mental health settings. Based on previous findings, it was expected that those in the anxiety without comorbidity group (i.e., those with a single anxiety diagnosis) would show a less severe clinical profile, less functional impairment and better psychosocial functioning than those with a comorbidity profile. In line with this less severe clinical profile, it was expected that youth without comorbidity would be less likely to have received previous psychological or pharmacological treatment. Despite previous research combining those with comorbid ADHD and conduct disorders, we expected to see differences, with those in the comorbid conduct problems group showing more rule breaking and aggressive behaviors, and those in the comorbid ADHD group would show more attention problems. We also expected that those with a comorbid conduct problems profile would have higher levels of functional impairments, poorer relationships with siblings, peers and parents, compared to those with a comorbid ADHD profile. Given the high rates of stimulant medication use amongst those with ADHD, we expected that youth with comorbid conduct problems would be more likely to have received previous psychotherapy, but not pharmacological therapy.

2. Method

2.1. Participants

Participants were 111 treatment-seeking children aged 7–13 years ($M=9.88$, $SD=1.85$; 45.00% female) and their parents recruited from three community mental health centers in Florida during the baseline assessment for a randomized control trial for the treatment of pediatric anxiety disorders (Storch et al., 2015b). Demographic details for this sample and related samples have been reported elsewhere (Hamblin et al., 2015; Johnco et al.,

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