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An initial waitlist-controlled trial of the unified protocol for the treatment of emotional disorders in adolescents

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ABSTRACT

A substantial proportion of adolescents are non-responders to well-established treatments for anxiety and depression, and many existent approaches do not adequately address comorbidity. There is a need to develop and evaluate unified treatments for adolescents that flexibly address higher order factors shared among internalizing or emotional disorders. The Unified Protocol for the Treatment of Emotional Disorders in Adolescents (UP-A) is a transdiagnostic treatment that targets shared vulnerability and maintenance factors in a flexible format. This study examined initial outcomes of a randomized, waitlist-controlled trial of the UP-A. The UP-A outperformed waitlist at mid-treatment with respect to disorder severity and functional impairment, and there was a significant treatment effect in favor of the UP-A on all outcome measures at post-treatment. Within-subjects analyses collapsing across participants revealed significant improvements on outcome measures over time. Results support further study of the UP-A and its potential efficacy in treating adolescent anxiety and depression.

1. Introduction

Youth anxiety and depressive disorders are highly prevalent, distressing and disruptive to functioning (Beesdo, Knappe, & Pine, 2009; Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Kessler, Chiu, Demler, Merikangas, & Walters, 2005; Merikangas et al., 2010). Approximately 30% of youth meet criteria for an anxiety disorder and 12% for a depressive disorder during adolescence (Merikangas et al., 2010). Furthermore, the prevalence of many anxiety disorders (e.g., panic disorder, agoraphobia, social anxiety disorder, generalized anxiety disorder) and depressive disorders increases during adolescence (Costello, Egger, Copeland, Erkanli, & Angold, 2011; Merikangas & Knight, 2009). Comorbidity between anxiety and depressive disorders is also common, with rates as high as 75% in clinical samples (Sørensen, Nissen, Mors, & Thomsen, 2005; Weersing, Gonzalez, Campo, & Lucas, 2008). Both anxiety and depression have been linked to poorer interpersonal and academic functioning during adolescence (e.g., Jaycox et al., 2009; Scheier & Botvin, 1997), and such concerns often persist into adulthood without intervention (Birmaher et al., 1996; Keller et al., 1992), making effective treatment during adolescence imperative.

Many empirically supported treatment (EST) protocols are efficacious in reducing symptoms of anxiety and depression in youth. Results of the Child-Adolescent Anxiety Multimodal Study (CAMS) indicated that approximately 60% of youth receiving cognitive-behavioral therapy (CBT) alone were treatment responders (Walkup et al., 2008), a figure comparable to that found in other trials (e.g., Kendall, Hudson, Gosch, Flannery-Schroeder, & Suveg, 2008). However, six-year follow-up results from the CAMS trial revealed that about half of youth who initially responded to acute CBT had experienced a relapse (Ginsburg et al., 2014). Similarly, the Treatment for Adolescents with Depression Study (TADS) reported a response rate of 65% for 18 weeks of CBT, although a greater proportion of youth responded when treatment length was extended to 36 weeks (March & Vitiello, 2009). These results suggest that treatments for youth emotional disorders may need to be enhanced to better prevent relapse and improve response times.

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An additional constraint of ESTs such as those mentioned above is their limited ability to address diagnostic comorbidity or the purposeful exclusion of co-occurring emotional disorders when evaluating single-domain or disorder protocol efficacy (Berman, Weems, Silverman, & Kurtines, 2000; David-Ferdon & Kaslow, 2008; Kendall, Brady, & Verduin, 2001; Rapee, 2003). Many EST protocols for youth target symptoms of single disorders (e.g., Beidel, Turner, & Morris, 2000; Pincus, Ehrenreich, & Mattis, 2008) or domains (e.g., Kendall & Hedtke, 2006), rather than shared risk factors or commonalities underlying multiple disorders. Such treatments may not adequately address the needs of the many youth who present with more complex patterns of comorbidity, resulting in poorer treatment outcome. Although not all studies have found a relationship between clinical comorbidity and treatment outcome (see Ollendick, Jarrett, Grills-Taquechel, Hovey, & Wolff, 2008 for a review), many investigators have found evidence that comorbidity is predictive of poorer response to interventions in youth with both primary anxiety (Berman et al., 2000; Ginsburg et al., 2011; Kendall et al., 2001; Rapee, 2000; Rapee, 2003) and primary depression (Curry et al., 2006; Curry et al., 2011; Young, Mufson, & Davies, 2006).

Evidence of shared biological, temperamental, cognitive, and environmental risk and maintenance factors for anxiety and depressive disorders supports the need for transdiagnostic treatment protocols that address these concerns. Targeting higher order factors underlying a range of emotional disorders (e.g., neuroticism, extraversion, etc.) may also help to prevent the development of later depression in adolescents with anxiety, and vice versa. Anxiety typically precedes depression developmentally (e.g., Brady & Kendall, 1992; Lamers et al., 2011), and symptoms and impairment associated with anxiety disorders may set the stage for depression through direct or indirect causal pathways. Potential mediators of this relationship include repetitive negative thinking (Hankin, 2008; McLaughlin & Nolen-Hoeksema, 2011), behavioral avoidance (Jacobson & Newman, 2014), and interpersonal impairment (Starr, Hammen, Connolly, & Brennan, 2014). Depressive symptoms have also been shown to predict elevations in anxiety symptoms over time (Kouros, Quasem, & Garber, 2013), and Cummings, Caporino, and Kendall (2014) proposed that there may be multiple developmental pathways leading to depression, anxiety, and their comorbidity. Comorbidity may be best addressed by targeting both shared risk factors underlying anxiety and depression and by addressing disorder-related impairment that places youth at risk for developing additional emotional disorders.

Because of their potential to parsimoniously and flexibly address a range of emotional disorders, transdiagnostic interventions may also ease dissemination of ESTs to community clinicians. In spite of the efficacy of various protocols in the treatment of youth concerns, evidence-based treatments (ESTs) are not reaching the majority of youth in need of services (Riemer, Rosof-Williams, & Bickman, 2005). For example, anxiety is severely undertreated despite being among the most common mental illnesses in youth, with only 1 in 3 youth receiving treatment (Merikangas et al., 2010). A major barrier to implementation of ESTs is a lack of clinician training in the various protocols that exist (McHugh & Barlow, 2010). Furthermore, treatments that have been shown to be efficacious in university-based trials may not be as effective when implemented in usual care settings (Weisz, Jensen-Doss, & Hawley, 2006; Weisz, Ugueto, Cheron, & Herren, 2013), and differing patterns of comorbidity among youth treated in community settings may contribute to this discrepancy (Southam-Gerow, Weisz, & Kendall, 2003). Although treatment fidelity is an important factor in the transportability of treatments to clinical settings, treatment protocols must be flexible to effectively address varying clinical presentations, including co-occurring, sub-threshold or poorly understood manifestations of emotional disorders.

McHugh and Barlow (2010) proposed that transdiagnostic treatments represent a shift in the way fidelity is conceptualized and allow for both increased adherence and increased flexibility. Supporting this theory, Weisz et al. (2013) demonstrated the effectiveness of a modularized treatment protocol delivered by community-based clinicians in the treatment of youth anxiety, depression, and conduct problems. Youth treated by clinicians assigned to a modularized treatment condition demonstrated greater symptom reduction and fewer clinical diagnoses at the post treatment assessment when compared with youth assigned to the standard treatment and usual care conditions. These results suggest that interventions administered in a flexible format have enhanced effectiveness. In this sense, the development of transdiagnostic or unified treatments may further dissemination efforts by allowing community clinicians to flexibly target a range of emotional disturbances within a single treatment protocol.

Unified approaches that apply a core set of principles to the treatment of emotional disorders may result in improved response rates to ESTs, particularly for comorbid conditions, and facilitate dissemination efforts. The Unified Protocols for Treatment of Emotional Disorders (UP; Barlow et al., 2011), as well as downward extensions of the UP designed for adolescents and children (UP-A/UP-C; Ehrenreich-May et al., in press), take a transdiagnostic approach to the treatment of emotional disorders by focusing on a set of core change principles and applying them across a range of emotional disorder presentations. The efficacy of the UP has been demonstrated in a randomized, waitlist-controlled trial of adults with a primary anxiety disorder. Participants who received immediate treatment demonstrated greater improvement on measures of clinical severity, anxiety and depression severity, positive and negative affect, and interference when compared to those in the waitlist condition (Farchione et al., 2012). The majority of changes were maintained six months post-treatment (Farchione et al., 2012), and all participants who met responder status at the six-month follow-up retained their status one year later (Bullis, Fortune, Farchione, & Barlow, 2014).

Similar to the UP, the UP-A is a flexibly administered treatment protocol designed to improve emotion reactivity and regulation and ameliorate anxiety and depressive symptoms using an array of evidence-based treatment techniques. Both protocols are based on research and theory from emotion and cognitive science and attempt to elicit change across several core principles. These intervention principles include: (1) understanding and gaining greater awareness of emotions and emotional experiences; (2) preventing emotional avoidance and practicing present-focused awareness by engaging in graduated emotion-evocation exercises; (3) increasing cognitive flexibility and linking thoughts to sensations; (4) challenging negative and anxious appraisals related to internal and external threats using antecedent cognitive reappraisal techniques; and (5) identifying and modifying maladaptive action tendencies through various exposure and activation techniques. These intervention principles are believed to influence emotional disorder intensity and impairment via changes in emotion reactivity and regulation, as well as behavioral avoidance. Treatment techniques are applied to a range of emotions including sadness, anxiety, fear, and anger in order to increase the individual's ability to generalize skills across a variety of affective states. While the theoretical basis and content of the UP-A is consistent with the UP, developmentally appropriate modifications were made to create this treatment protocol. For example, the language and supplemental materials in the protocol were adapted for use with adolescents, parent-directed sessions were added, and modifications were made to more comprehensively address internalizing disorders not commonly seen in adults (e.g., separation anxiety disorder).

An initial multiple-baseline trial of the UP-A with three adolescents (Ehrenreich, Goldstein, Wright, & Barlow, 2009) and an