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Does psychotherapy work with school-aged youth? A meta-analytic examination of moderator variables that influence therapeutic outcomes

Alicia L. Fedewa [a,*], Soyeon Ahn [b], Robert J. Reese [a], Marietta M. Suarez [b], Ahjane Macquoid [b], Matthew C. Davis [a], H. Thompson Prout [a]

[a] Department of Educational, School, and Counseling Psychology, University of Kentucky, United States
[b] Department of Educational and Psychological Studies, University of Miami, United States

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ABSTRACT

The present study is a quantitative synthesis of the available literature to investigate the efficacy of psychotherapy for children's mental health outcomes. In particular, this study focuses on potential moderating variables—study design, treatment, client, and therapist characteristics—that may influence therapeutic outcomes for youth but have not been thoroughly accounted for in prior meta-analytic studies. An electronic search of relevant databases resulted in 190 unpublished and published studies that met criteria for inclusion in the analysis. Effect sizes differed by study design. Pre–post-test designs resulted in absolute magnitudes of treatment effects ranging from |−0.02| to |−0.76| while treatment versus control group comparison designs resulted in absolute magnitudes of treatment effects ranging from |−0.14| to |−2.39|. Changes in youth outcomes larger than 20% were found, irrespective of study design, for outcomes focused on psychosomatization (29% reduction), school attendance (25% increase), and stress (48% reduction). The magnitude of changes after psychotherapy ranged from 6% (externalizing problems) to 48% (stress). Several moderator variables significantly influenced psychotherapy treatment effect sizes, including frequency and length of treatment as well as treatment format. However, results did not support the superiority of a single type of intervention for most outcomes. Implications for therapy with school-aged youth and future research are discussed.

1. Introduction

In recent years, heightened awareness of the need for psychological services in the schools has prompted much research and focus on the topic. Further evidence for the need is supported by a Centers for Disease Control and Prevention's (CDC, 2013) report that in any one year a mental disorder occurs for 13 to 20% of children in the United States with evidence of rising prevalence rates. This fact is coupled with the realization that many youth do not receive the psychological services they need; approximately 50% of school-aged youth who have a diagnosable mental illness do not receive treatment (Merikangas et al., 2011).

For children who are in need of services and receive them, they often occur in a school setting. The Substance Abuse and Mental Health Services Administration (SAMHSA, 2014) reported that 13% of children (ages 12–17 years) who received mental health services received them in a school setting compared to 13.6% in a mental health outpatient or inpatient clinic. Schools have been

* Corresponding author at: Department of Educational, School, and Counseling Psychology, University of Kentucky, Lexington, KY 40506, United States.
E-mail address: alicia.fedewa@uky.edu (A.L. Fedewa).
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identified as an appropriate and frequently used setting for providing direct psychotherapeutic interventions and treatment to youth given that they provide access to mental health services many children would otherwise not have (Green et al., 2013; Kazdin & Johnson, 1994). In addition, the need for mental health services in the schools is further realized when considering parents who are unable or unwilling to access community health service providers (Prout & Prout, 1998). Schools are thus in a unique position to fulfill the role as an effective mental health delivery system to reach children in need of psychological services. Moreover, there is typically no other setting for children in which problem behaviors, social/emotional behaviors, prosocial functioning, and academic performance can be observed together (Kazdin & Johnson, 1994).

School psychologists are seen as key personnel in the provision of mental health services for youth, particularly in schools (Prout, Alexander, Fletcher, Memis, & Miller, 1993; Reinke, Stornmont, Herman, Puri, & Goel, 2011). However, despite the evidence that documents the effects of mental health on children's school success (DeSocio & Hootman, 2004; Dilley, 2009; U.S. Department of Health and Human Services [USDHHS], 1999), limited resources and funds are allocated for youth mental health services in the schools (Maag & Katsiyannis, 2010). With limited resources, less focus is given to direct intervention services (Adelman & Taylor, 2006). Given that youth psychotherapy is one means of direct intervention to support children's mental health, it is imperative that school psychologists be equipped with knowledge to advocate for and provide empirically supported treatments in the most efficient and feasible ways possible.

1.1. The evidence

An empirical review of the literature on child psychotherapy outcomes reveals studies assessing general effects from therapy (Weisz, Jensen-Doss, & Hawley, 2006a), effectiveness of specific theoretical orientations (Bratton, Ray, & Rhine, 2005) and research investigating specific outcomes (Sukhodolsky, Kassinove, & Gorman, 2004; Weisz, McCarty, & Valeri, 2006b). The results from these analyses and others document the relative effectiveness of child psychotherapy outcomes (Prout & DeMartino, 1986; Prout & Prout, 1998; Reese, Prout, Zirkelback, & Anderson, 2010; Weisz, Weiss, Han, Granger, & Morton, 1995). Effect sizes from prior meta-analyses range from 0.54 (Weisz et al., 1995) to 0.95 (Prout & Prout, 1998), indicating moderate to strong effects across treatment and diagnostic categories.

Specific to psychotherapy provided in a school setting, meta-analyses (Prout & DeMartino, 1986; Prout & Prout, 1998; Reese et al., 2010) have all evidenced medium to large effect sizes. Prout and DeMartino reviewed 33 studies and found an overall standardized mean difference of 0.58 for psychotherapy delivered in schools. They also found larger standardized mean differences for group treatments (0.93 vs. 0.39 for individual treatments) and behavioral treatments (0.65 vs. 0.40 non-behavioral interventions). Prout and Prout updated this review and found a standardized mean difference of 0.95 based on 17 studies. They also found an advantage for group and cognitive–behavioral interventions. Reese et al. (2010) provided another update and included dissertations to assess for a publication bias. Based on 63 studies, a standardized mean difference of 0.44 was found, which was comparable to Prout and DeMartino's (1986) study. They also found a small publication bias (standardized mean difference of 0.17 larger), but the bias was smaller than in the broader youth psychotherapy outcome literature (standardized mean difference of 0.36 larger; McLeod & Weisz, 2004). Collectively, these studies point to the effectiveness of psychotherapy interventions within a school context. However, these studies also had significant limitations. First, a limited number of studies were reviewed. Second, collapsing either the type of psychotherapy or the presenting problem of the child—standard methodological practice in prior meta-analytic reviews—may be limited to inform differential treatment effects depending on moderators such as client characteristics, treatment characteristics, and other therapeutic variables to name a few. Thus, it is necessary to investigate the interplay of other key variables (moderators) that may yield a differential youth response to psychotherapy. Few of these moderators have been addressed with youth, and even fewer within a school setting.

1.2. The role of moderators

Schmidt and Schimmelmann (2015) suggest that our understanding of treatment effects is hindered by our lack of understanding of the mechanisms involved in the therapeutic process. Some of these variables include client characteristics, treatment characteristics, and therapist characteristics.

1.2.1. Client characteristics

Research on moderators associated with client characteristics (e.g., age, gender, disorder, race/ethnicity) in therapy offers mixed results. For example, some research concludes no moderating effects by race/ethnicity, comorbidities, gender, age, or severity of disorder (Wolitzky-Taylor, Arch, Rosenfield, & Craske, 2012), while others suggest client characteristics do moderate therapeutic change (Craske et al., 2014; Tolin, Frost, Steketee, & Muroff, 2015). Apart from customary demographic information as moderating factors, personality characteristics hypothesized to be related to specific disorders (e.g., tendency to over-estimate weight or body shape in binge-eating disorders or level of anxiety sensitivity in anxiety disorders) have been identified in some adult studies (Grilo, Masheb, & Crosby, 2012; Lorenzo-Luaces, DeRubeis, & Webb, 2014; Wolitzky-Taylor et al., 2012). These client characteristics may interact with treatment and therapist characteristics on youth outcomes, though an understanding of how has not yet been sufficiently established, particularly with children and adolescents.