EDITORIAL

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Editorial: Making Sense of Youth Psychotherapy Dropout From Depression Treatment

Dikla Eckshtain, PhD, and John R. Weisz, PhD

Adolescent depression is a prevalent disorder that increases risk for significant functional impairment and suicidality.[1-3] Several psychotherapies are available, and it has been widely assumed that failure to complete these therapies will undermine benefit. The important study by O'Keeffe *et al.* raises questions about that assumption.[4]

O'Keeffe *et al.*[4] evaluated the clinical outcomes of 406 adolescents who were depressed, aged 11 to 17 years, 169 of whom dropped out of therapy before it was supposed to end. All of the adolescents met criteria for major depressive disorder and were part of the Improving Mood with Psychoanalytic and Cognitive Therapies (IMPACT) randomized controlled trial comparing brief psychosocial intervention (BPI), cognitive-behavioral therapy (CBT), and short-term psychoanalytic psychotherapy (STPP). Assessments were conducted during treatment (6 and 12 weeks), after treatment (36 weeks), and at follow-up (52 and 86 weeks). Treatment completion was defined as ending therapy as planned or by mutual agreement with the therapist, and treatment dropout was defined as ending therapy without the agreement of the therapist, regardless of the number of sessions completed. Dropouts constituted 37% of the original 406 participants. Dropping out was not associated with clinical outcome on any study measure except for a few comparisons involving depression diagnosis: in the CBT and STPP groups at 52 and 36 weeks, respectively, completers were less likely than dropouts to meet criteria for depression; in the BPI group, completers were, surprisingly, *more* likely than dropouts to meet diagnostic criteria at 36 weeks.

O'Keeffe *et al.*[4] discussed two potentially relevant limitations. First, dropout was defined based on therapists' views and without regard to when dropout occurred. Although the authors addressed it using sensitivity analyses, this makes the classification rather subjective as to whether the adolescents had completed most therapy, learned the core skills, and so forth. Second, the adolescents were not asked about their reasons for dropping out; that information could have helped the investigators to discern the extent to which dropout occurred because the adolescents faced logistical or other problems that prevented attendance, did not like the treatment, believed that they had improved and no longer needed treatment, or exited for other reasons. Collecting this information in future studies could not only clarify the most common reasons but could also permit assessment of outcomes as a function of those reasons. It is possible, for example, that adolescents who stopped because they perceived improvement would not show worse outcomes than completers, whereas adolescents who dropped out for other reasons might show worse outcomes.

One limitation not noted by the authors relates to the fact that the three treatments differed in planned number of sessions and duration, with 12 sessions of BPI over 20 weeks, up to 20 sessions of CBT over 30 weeks, and 28 sessions of STPP over 30 weeks.[5] This variation may complicate interpretation of the findings, to some degree, because "completing therapy" has a different meaning—in dose and duration—across the three conditions. Completing 28 sessions over 30 weeks may be a substantially bigger "expectation" than completing 12 sessions over 20 weeks. The dose and duration implications of dropout might also have differed across conditions; completing 50% of therapy, for example, would have meant 6 sessions in BPI, 10 sessions in CBT, and 14 sessions in STPP, leading to potentially different mean dosage of treatment received by both completers and dropouts across conditions. To illustrate the implications for interpretation of findings, the fact that the BPI group's dropouts seemed to fare worse than dropouts from the other two groups could have resulted, in part, from a substantially lower dose of treatment received by the BPI group.

It may also be useful to consider therapy protocol contents in further analyses of these or related data. The two treatment groups for which there was at least some relation between dropout and poorer diagnostic outcome—namely, CBT and STPP—included not only more sessions than BPI but apparently richer structure. Moreover, in CBT, the treatment with the strongest evidence of efficacy in multiple

prior trials, dropouts were 6 times more likely to meet criteria for depression at 52 weeks compared with completers, compared to the STPP group, in which dropouts were 2.7 times more likely to meet diagnostic criteria for depression at 36 weeks than completers. These differences are consistent with the view that an evidence-based psychotherapy, such as CBT, may fare somewhat better than therapies that have less substantial prior empirical support.[6]

The study by O'Keeffe *et al.*[4] raises intriguing questions for further research on therapy dropout by adolescents who are depressed. Such research should include assessment of dropouts' reasons for ending treatment, to refine our understanding of implementation and of post-treatment outcomes (see Garcia and Weisz for an example of relevant methods[7]). Although it will be useful to expand our understanding, the high rates of dropout in this study serve to remind us that not all youths who begin therapy will finish it, and to emphasize the importance of several relevant trends in psychotherapy research. These trends include the following:

(1) Development of strategies for identifying the best-fitting treatment protocol for each youth, based on assessment profile and clinical presentation.[8] This can be accomplished by using methods such as the Personalized Advantage Index, which optimizes treatment selection by using pretreatment variables.[9] It can also be accomplished by using the Sequential Multiple Assignment Randomized Trial (SMART) design to construct decision rules for the development of adaptive treatment with guidelines regarding the best-fit approach based on youths' characteristics and needs.[10] Personalized treatment is a key component of the Institute of Medicine (IOM) report on building successful treatments[11] and the cornerstone of the National Institutes of Health Precision Medicine Initiative that is central to the National Institute of Mental Health Strategic Plan.[12]

(2) Development of treatments involving flexible use of treatment components to permit personalizing, session by session, to fit each individual youth. One approach is modular treatment as exemplified by the Modular Approach to Therapy for Children with Anxiety, Depression, Trauma, or Conduct Problems (MATCH-ADTC).[13] Another approach is treatment built on flexible application of a small number of therapeutic principles of change.[14]

(3) Development of treatments that involve the parents and address the family context in which depression develops.[15] This approach may provide much-needed support for attending therapy and practicing and instantiating the skills learned in therapy.

(4) Development of treatments that convey core lessons of therapy with such brevity that treatment is done virtually before dropout can happen. At the extreme, even single-session treatments have shown surprising potency with children and adolescents, as documented in a recent meta-analysis in this journal, showing a mean effect size (Hedges *g*) of 0.32.[16]

A recent meta-analysis of 447 youth psychotherapy trials found that effects for youth depression were modest (g = 0.29 at posttreatment, 0.22 at follow-up) and lagged significantly behind therapy effects for other conditions.[17] The study by O'Keeffe *et al.*[4] demonstrated high rates of dropout with very limited outcome differences between completers and dropouts. Taken together, the findings suggest a need to improve psychotherapy effectiveness for adolescents who are depressed, strengthening both the immediate and the longer-term benefits. This may be achieved by emphasizing scientifically supported treatments, and by using psychotherapy innovations that emphasize personalization and efficiency. The important findings and thoughtful discussion provided by O'Keeffe *et al.*[4] are a valuable stimulus for research in the days ahead.

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