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Adaptation of Multi-Family Psychoeducational Psychotherapy (MF-PEP) for Adolescents with Mood Disorders: Preliminary Findings

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Abstract

Adolescent mood disorders are a major public health concern. Clinical need for services outstrips availability in many communities. Group psychotherapy is an efficient means to provide service to a larger number of clientele and can offer certain clinical advantages. Multi-Family Psychoeducational Psychotherapy (MF-PEP), an adjunctive group psychosocial treatment, has been shown to improve children's mood symptoms, increase parents' knowledge of mood disorder symptoms, improve family interactions and improve use of behavioral health services. In this study, an adaptation of MF-PEP for adolescents with mood disorders is described and preliminary data are presented. Among the 19 adolescents with mood disorders and 22 parents who completed the study, improvements in adolescents' depressive symptoms, quality of life, families' understanding of mood disorders, and overall satisfaction with treatment were reported. Results have informed ongoing pilot testing of Teen-MF-PEP.

Keywords

Adolescent; mood disorders; group therapy; depression; bipolar disorder

Depressive and bipolar spectrum disorders (collectively, mood disorders) during childhood or adolescence present a major public health concern (Curry & Becker, 2008). Pediatric mood disorders are associated with psychosocial impairment in family, peer, school, and work domains (Goldstein et al., 2009); poorer quality of life (Freeman et al., 2009); and suicidal ideation and behavior (Goldstein et al., 2012; Jonsson et al., 2011).

Although effective evidence-based treatments for youth mood disorders exist, access to such treatments in many communities is limited (Husky et al., 2012) and few targeted treatments have been empirically validated (Weersing, Jeffreys, Do, Schwartz, and Bolano, 2017;

Fristad & MacPherson, 2014). While pharmacotherapy can be an important treatment component for youth mood disorders, developmentally appropriate psychosocial treatments are also effective in increasing knowledge about mood disorders, building skills to manage and alleviate symptoms, and improving family interactions (Fristad, Goldberg Arnold, & Leffler, 2011). The current paper describes Multi-Family Psychoeducational Psychotherapy (MF-PEP), an evidence-based group treatment for children with mood disorders and their parents, and its adaptation for adolescents and their parents (Teen MF-PEP) across four treatment waves. The theoretical and empirical basis for MF-PEP is described, as well as the iterative process of adapting the protocol for adolescents, along with preliminary results.

While there are a number of treatments for youth with depression or bipolar disorder (Fristad & Algorta, 2013; Fristad & MacPherson, 2014; Goldstein et al, in press; Weersing et al., 2017), no treatment for adolescents has been utilized transdiagnostically. Given the need in many communities to treat a large number of youth with a wide variety of mood disorders, a transdiagnostic group-based intervention may provide a pragmatic approach to care (Fristad, Goldberg-Arnold, & Gavazzi, 2002).

What is MF-PEP?

MF-PEP is group-based psychoeducational psychotherapy delivered to children and their parents over eight 90-minute sessions. MF-PEP's primary aims are to educate families about mood disorders and their treatment, provide support from therapists and facilitate support among families, and help families build skills in symptom management, affect regulation, problem-solving, and communication (Fristad, Verducci, Walters, & Young, 2009). Families begin and end sessions together, but the majority of each session is spent in separate youth and parent groups. Groups engage in four primarily didactic sessions focused on mood disorders and their symptoms, interventions (including healthy habits), coping skills, and cognitive behavioral therapy (CBT); four additional skill-building sessions focus on problem-solving, verbal and non-verbal communication, and a review of material. There is a consistent structure for each session including a preview and review of material, a deep breathing exercise, group games that serve as ice breakers and an opportunity to practice social skills in vivo, and take-home projects which are started during each session and reviewed at the beginning of the next session. A complete session-by-session description of MF-PEP can be found in Fristad et al., 2011.

MF-PEP's Theoretical Background

MF-PEP was developed based on research on expressed emotion (EE) and psychoeducation. It also draws techniques from CBT, family systems theory, and in the teen version, elements of dialectical behavioral therapy (DBT) including mindfulness and acceptance are introduced. EE, or critical comments, hostility and emotional over-involvement expressed by family members of individuals with psychiatric disorders, has been associated with relapse in a number of populations, including adults with schizophrenia (e.g., Brown, Monck, Carstairs, & Wing, 1962); adults with mood disorders (e.g., Hooley, Orley & Teasdale, 1986); and youth with mood disorders (e.g., Asarnow, Thompson, Hamilton, Goldstein, & Guthrie, 1994; Miklowitz et al., 2009). Psychoeducation programs that target EE teach

individuals and families affected by psychiatric disorders about the disorder's symptoms, course, prognosis, management and treatment. In addition, psychoeducation programs can teach individuals to understand symptoms of mood disorders as separate from themselves and to reduce the guilt and blame that often accompany the presence of a mood disorder (Fristad, 2006).

Empirical Support for MF-PEP

MF-PEP for children has been tested in two RCTs. In a pilot RCT with 35 families, parents who received MF-PEP plus treatment as usual (TAU) reported significantly more knowledge of mood disorders than parents in the wait-list control (WLC) plus TAU. In addition, they became better consumers of care (i.e., sought more evidence-based treatment subsequent to participating in MF-PEP), reported significantly higher positive EE and lower negative EE ratings, and children endorsed significantly improved social support from parents (Fristad, Goldberg Arnold, & Gavazzi, 2003). In a larger RCT with 165 children, Fristad et al. (2009) found that MF-PEP + TAU was associated with significantly lower mood symptom severity at the 12-month follow-up compared to the WLC + TAU group. The same trial demonstrated that participation in MF-PEP is associated with improved consumer ability to access mental health care, mediated by parents' beliefs about psychosocial and pharmacological treatment efficacy (e.g., seriousness of illness, cost and benefits of treatment knowledge of treatment), as well as improvement in their child's mood symptoms, mediated by the quality of services used (Mendenhall, Fristad, & Early, 2009). In addition, disruptive behaviors declined with treatment (Boylan, MacPherson & Fristad, 2013). In sum, MF-PEP benefits children with mood disorders and their families via increased knowledge of mood disorders, improved family interactions, better utilization, beliefs about treatment effectiveness, and symptom improvement.

Adaptations for Teen MF-PEP

While the core components of MF-PEP are applicable to all youth, several adaptations were made to increase engagement and developmental appropriateness for an older age group. Many of these changes related to adolescents' more advanced metacognitive skills and increased self-awareness, allowing therapists to engage in deeper and more nuanced explanations of treatment topics. Additionally, mindfulness training exercises were added to the beginning of each session to substitute for games at the end of the child sessions. The introduction of mindfulness skills encourages adolescents to focus on the present, observe their own emotions and thoughts without judgment, tolerate distress, and interact with others nonjudgmentally. Adolescents also learn the concept of balancing acceptance and change. Because adolescents are more independent and in a few years will be in a position to manage their own medical and mental health treatment, they are included in the discussion of who comprises their treatment network.

Other changes reflect age-related concerns. While the majority of the same concepts and skills are utilized as in the child version, workbook examples explaining them are tailored to adolescent issues (e.g., curfew, seeking independence, social media, or job-related stressors). Healthy habits are discussed including the effects of sleep disruption, low (or excessive)

levels of exercise, and poor diet on mood. Content covering verbal and non-verbal communication includes communication via social media. Content for parents addresses special challenges in raising teenagers, in particular, the tendency to pathologize typical developmental events, such as growing independence and individuation. Additional topics include increased risk taking, prioritizing time with peers, adolescent alcohol and drug experimentation, sexual behavior, normative moodiness, and brain development, particularly as relates to judgment and impulse control.

Teen MF-PEP Sessions

Adolescents and their parents attend eight weekly 90-minute sessions led by therapists trained in MF-PEP. Adolescents and their parents each receive workbooks to use throughout treatment. The typical structure of each session is described in Table 1. Families begin and end sessions together, but the majority of each session is spent in separate adolescent and parent groups. In both groups, the first four sessions are more didactic in nature, while the final four focus more on skill building. The content of each adolescent and parent session is described in Table 2.

Materials and Methods

Participants

Twenty-six teens and 35 of their parents participated across four waves of treatment. Nineteen teens (73%) completed treatment, 14 females and 5 males. Most (73.7%) were Caucasian; 26.3% were African American. Ages ranged from 12.1 to 18.0 years. Primary diagnoses included major depressive disorder (MDD, $n=9$), bipolar not otherwise specified (BP-NOS, $n=6$), bipolar I ($n=2$), and one each with depression NOS and mood disorder NOS. Teens had, on average, 1.2 comorbid disorders, including attention deficit hyperactivity disorder ($n=8$), generalized anxiety disorder ($n=4$), two each with oppositional defiant disorder, social phobia, eating disorder NOS, one each with anxiety disorder NOS, panic disorder, and gender identity disorder. Five had no comorbid diagnoses. Exclusion criteria included the following: IQ < 70, primary diagnosis other than mood, chronic suicidal behaviors or self-injury, and parental inability or unwillingness to attend at least seven of eight sessions.

Youth were diagnosed by licensed mental health clinicians from a mood and anxiety clinic using K-SADS-PL (Schedule for Affective Disorders and Schizophrenia for School-Age Children--Present and Lifetime Version; Lauth et al., 2010). Using this assessment tool, a diagnosis of Bipolar Disorder Not Otherwise Specified (BP-NOS) is given for youth with manic or hypomanic features that do not meet criteria for any specific bipolar disorder (e.g. at least one hypomanic episode and one MDD episode, but never either manic or cyclothymic).

Twenty-three parents completed treatment (65%; 17 mothers, 6 fathers, one of whom joined partway through the sessions). Four teens had two parents participate. Scores for each co-parent pair were averaged to produce a single parent value per measure for their teen. The remaining 15 parents provided a single parent value per measure for their teen.

Seven teens and 12 parents dropped out of treatment due to a combination of logistical and clinical factors. These included the early evening meeting time, which was challenging for some families to coordinate with work and co-curricular schedules; social anxiety that made several teens uncomfortable in a group setting; lack of financial resources and inadequate insurance coverage in one family; and movement out of state in one family.

Procedures

Adolescents and their families being treated at a specialty mood/anxiety clinic within a Midwestern pediatric hospital's behavioral health program were invited to participate in this new clinical service if the adolescent: 1) had a mood disorder; 2) communicated adequately in English; and 3) had a parent or parents willing to participate who also communicated adequately in English. Clinicians at the clinic were encouraged to refer families to the program and brochures were posted in the clinic area. The second author was the lead clinician for the study.

Informed consent and assent were acquired from participants prior to completing study measures. Adolescents and their parents attended eight weekly 90-minute sessions. Additional time was used to complete pre- and post-course assessments. Groups were led by trained mental health professionals including a clinical psychologist, a master's level social worker, a post-doctoral psychology fellow, and a licensed professional clinical counselor (group leadership differed by wave). Therapists utilized an MF-PEP treatment manual while participants followed along in teen and parent workbooks. Families also completed weekly projects together and reviewed them during sessions. Weekly project completion was reinforced with small tangible rewards (e.g., Starbursts, snack size candy bars); group attendance and participation contributed additively to teens having a chance to win a \$10 gift card of their choice drawn at the final session. Staff members were trained in the model prior to leading groups. Following every session, brief supervision with the treatment developer occurred to review fidelity, address clinical issues and monitor progress.

Measures

Self- and parent-report measures were administered at the beginning and end of treatment, with the exception of the Demographics Form, completed only at baseline, and the Group Satisfaction Survey, completed only at the end of treatment. One measure was not administered at pre-treatment to the first wave of parents; a second measure was not added until the second MF-PEP wave was conducted.

Demographics Form.—Parents reported their child's age, sex, ethnicity, race, treatment history, and their relationship to their child.

The Ohio Youth Problem, Functioning, and Satisfaction Scales – Short Form, Youth and Parent Forms.—These scales include four subscales that assess: 1) severity of common problems reported by youth receiving behavioral health services (scores range from 0–100, higher scores indicate greater frequency of common problems); 2) functioning in a range of daily activities (scores range from 0–80, higher scores indicate better functioning); 3) satisfaction with and inclusion in behavioral health services (scores range from 4–24,

higher scores indicate less satisfaction and inclusion); and 4) hopefulness and wellbeing (scores range from 4–24, higher scores indicate less hope and wellbeing) (Ogles, Melendez, Davis, & Lunnen, 2001). Internal consistency of each scale ranges from adequate to excellent ($\alpha = 0.65$ – 0.97 , Ogles et al., 2001).

The Child Mania Rating Scale, Parent Version (CMRS).—Parents rate their adolescent's manic symptoms in the past month (Pavuluri, Henry, Devineni, Carbaray, & Birmaher, 2006). Scores range from 0–63, with higher scores indicating greater frequency of manic symptoms. Internal consistency and test-retest reliability for the CMRS are high (both = 0.96 ; Pavuluri et al., 2006).

The Mood and Feelings Questionnaire, Parent and Child Versions (MFQ).—The MFQ measures adolescents' depressive symptoms in the past two weeks (Angold et al., 1995). Scores range from 0–66 in the child version and 0–68 in the parent version (which includes one additional item) with higher scores indicating greater frequency of depressive symptoms. High reliability ($\alpha = 0.94$ for child version, 0.92 for parent version) has been demonstrated (Wood, Kroll, Moore, & Harrington, 1995).

The Understanding of Mood Disorder Questionnaire (UMDQ).—The UMDQ consists of items assessing adolescents' and parents' attributions about mood disorders and knowledge of mood disorder symptoms, course and treatment (Gavazzi, Fristad, & Law, 1997). Scores range from 0–59, with higher scores indicating greater knowledge of mood disorders. The UMDQ has good internal consistency ($\alpha = 0.73$), reliability, and is sensitive to increases in knowledge about mood disorders (Gavazzi et al., 1997). Wave 1 parents were not administered the pre-treatment UMDQ.

The Brief COPE (COPE+ and COPE-).—The Brief COPE is an abbreviated version of the COPE Inventory that assesses adolescents' coping behaviors through 28 items on 14 subscales (Carver, 1997). Scores range from 28 to 112, with higher scores indicating more frequent coping. Internal consistency of the subscales ranges from minimally acceptable to excellent ($\alpha = 0.50$ – 0.90 , Carver, Scheier, & Weintraub, 1989). Wave 1 participants did not complete the Brief COPE. Two subscores, COPE+ (adaptive coping styles, e.g., active coping, positive reframing) and COPE- (maladaptive coping, e.g., denial, self-blame) were analyzed. One subscale, venting, was excluded from the analysis as it may have been interpreted as seeking social support (adaptive) or ruminating (maladaptive).

The Group Satisfaction Survey (Adolescent and Parent Versions).—The Group Satisfaction Survey, which has been used in prior studies of MF-PEP in children, assessed satisfaction with and suggestions for improving MF-PEP. Apart from two open-ended items, the remaining 16 items assess satisfaction with elements of MF-PEP on a Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Scores range from 16–80 with higher scores indicating greater satisfaction with MF-PEP.

Results

Symptoms, Understanding of Mood Disorders, and Coping

Paired samples *t*-tests for pre- and post-treatment measure scores and corresponding Cohen's *d* values appear in Tables 3 and 4 for parents and adolescents, respectively. Cohen's *d* values were calculated for within-subjects samples; as the means were paired, a more conservative calculation was conducted, taking into account the standard deviation for each mean as well as the correlation between means (Morris & DeShon, 2002).

Improvements in parents' ratings from pre- to post-treatment were statistically significant and effect sizes were large for problems, satisfaction with treatment, hope, functioning, depressive symptoms, and understanding of mood disorders. Parent-rated manic symptom severity did not decrease significantly; effect size was small. Sensitivity analyses were completed with just those youth who had BPSD, results did not differ.

Improvements in adolescents' ratings from pre- to post-treatment were statistically significant and effect sizes were large for adaptive coping; effect sizes were moderate-to-large for problems, satisfaction with treatment and understanding of mood disorders. There was a non-significant trend toward improvement ($p < .10$) with low-to-moderate effect sizes for functioning and depressive symptoms. Hope and maladaptive coping did not show meaningful change.

Satisfaction with Teen MF-PEP

Overall, both adolescents and their parents were satisfied with Teen MF-PEP. Of the 15 Likert scale items ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) on the Group Satisfaction Survey, the average item rating score was 4.1, suggesting that adolescents felt the majority of Teen MF-PEP elements were helpful or enjoyable (e.g., learning about symptoms and medication, using workbooks, completing family projects). Parents also rated the majority of Teen MF-PEP elements highly ($M = 4.2$). Tables 5 and 6 present parent and teen satisfaction findings, respectively.

Discussion

This study provides feasibility and outcome data on a pilot adaptation of MF-PEP for adolescents with mood disorders. Preliminary results suggest that participation in Teen MF-PEP is associated with significant improvements, including moderate to large effect sizes for parent- and adolescent-rated problems, satisfaction, and understanding of mood disorders. Improvements in parent-rated hope for the future, functioning, and depressive symptoms also demonstrated statistically significant improvement with moderate to large effect sizes. Improvements in adolescent-rated adaptive coping were statistically significant with a large effect size, and improvements in functioning and depressive symptoms approached statistical significance and had small to moderate effect sizes. Finally, parent-rated manic symptoms and adolescent-rated hope for the future did not demonstrate statistically significant improvements. Participants identified well with each other's experiences, supported and challenged each other, and were able to apply Teen MF-PEP content through role-playing, group problem-solving, and coping. Group cohesion grew throughout the

program and was high by the final sessions. Both satisfaction ratings and participant comments for Teen MF-PEP were positive for adolescents and their parents.

Our findings suggest that not only is it possible to adapt the child MF-PEP material for teens, but this psychoeducational family model seems to have potential advantages for clients and behavioral health organizations. Improved satisfaction, engagement, and mood symptom ratings may reflect both use of empirically derived modules and a specific format to promote social learning and active coping across peer and family systems. Teens who struggle with mood disorders may encounter poor understanding of their emotional experiences by adults and peers in their lives. The group format of MF-PEP allows for a validating and potentially corrective peer and family treatment experience that provides the teen and his or her caregivers a language and tools to manage symptoms. Consistent with a CBT model, therapists model curiosity, collaboration as well as experimentation to arrive at solutions that may reduce client's distress. Over the course of group treatment, peers typically open up to one another and begin to understand that the challenges faced by others with depression or bipolar disorder are not uncommon and do not need to be accompanied by guilt and shame. Often teens and parents share insights, strategies, and validation that increase cohesion and motivation to tackle the challenges of mood management. From a behavioral health organizational standpoint, Teen MF-PEP may be an option to increase access to care to an increased number of families who are not in need of acute care. Potentially, some families will have their treatment needs met by this level of intervention and those that go on to require additional individual or family treatment will have a strong foundation in mood management, understanding of their condition, increased ability to utilize their treatment team, and a language to convey distress to families and providers.

Limitations of the study include: no control group; highly variable medication histories; lack of standardized baseline diagnostic assessments; variable group composition for each wave, group size and composition differences including age, gender and diagnostic breadth; and lack of long-term follow-up. Additional investigation with a larger, controlled trial attending to the aforementioned issues is necessary.

Future Directions

These preliminary findings suggest that MF-PEP can be successfully implemented for adolescents with mood disorders. While this small, uncontrolled sample clearly precludes generalization about the ultimate impact MF-PEP might have with mood-disordered adolescents, these preliminary feasibility and outcome data suggest further study is warranted.

References

- Angold A, Costello EJ, Messer SC, Pickles A, Winder F, & Silver D (1995). The development of a short questionnaire for use in epidemiological studies of depression in children and adolescents. *International Journal of Methods in Psychiatric Research*, 5, 237–249.
- Asarnow JR, Thompson M, Hamilton EB, Goldstein MJ, & Guthrie D (1994). Family-expressed emotion, childhood-onset schizophrenia spectrum disorders: Is expressed emotion a nonspecific correlate of child psychopathology or a specific risk factor for depression? *Journal of Abnormal Child Psychology*, 22, 129–146. doi:10.1007/BF02167896 [PubMed: 8064026]

- Barbini B, Bertelli S, Colombo C, & Smeraldi E (1996). Sleep loss, a possible factor in augmenting manic episode. *Psychiatry Research*, 65(2), 121–125. doi:10.1016/S0165-1781(96)02909-5 [PubMed: 9122286]
- Boylan K, MacPherson HA, & Fristad MA (2013). Examination of disruptive behavior outcomes and moderation in a randomized psychotherapy trial for mood disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, 52(7), 699–708. doi:10.1016/j.jaac.2013.04.014 [PubMed: 23800483]
- Brown GW, Monck EM, Carstairs GM, & Wing JK (1962). Influence of family life on the course of schizophrenic illness. *British Journal of Preventive and Social Medicine*, 16, 55–68. doi:10.1136/jech.16.2.55
- Carver CS (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine*, 4, 92–100. doi:10.1207/s15327558ijbm0401_6 [PubMed: 16250744]
- Carver CS, Scheier MF, & Weintraub JK (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56, 267–283. doi:10.1037/0022-3514.56.2.267 [PubMed: 2926629]
- Curry JF & Becker SJ (2008). Empirically supported psychotherapies for adolescent depression and mood disorders In Steele RG, Elkin TD, & Roberts MC (Eds.), *Handbook of evidence-based therapies for children and adolescents: Bridging science and practice* (pp. 161–176). New York, NY: Springer.
- Freeman AJ, Youngstrom EA, Michalak E, Siegel R, Meyers OI, & Findling RL (2009). Quality of life in pediatric bipolar disorder. *Pediatrics*, 123(3), 446–452. doi:10.1542/peds.2008-0841
- Fristad MA (2016). Evidence-based psychotherapies and nutritional interventions for children with bipolar spectrum disorders and their families. *Journal of Clinical Psychiatry*, 77, Suppl E1–E4. doi:10.4088/JCP.15017su1c.04
- Fristad MA (2006). Psychoeducational treatment for school-aged children with bipolar disorder. *Development and Psychopathology*, 18, 1289–1306. doi:10.1017/S0954579406060627 [PubMed: 17064439]
- Fristad MA & Algorta GP (2013). Future directions for research on youth with bipolar spectrum disorders. *Journal of Clinical Child & Adolescent Psychology*, 42(5), 734–747. doi:10.1080/15374416.2013.817312 [PubMed: 23915232]
- Fristad MA & MacPherson H (2014). Evidence-based psychosocial treatments for child and adolescent bipolar spectrum disorders. *Journal of Clinical Child and Adolescent Psychology*, 43(3), 339–355. doi:10.1080/15374416.2013.822309 [PubMed: 23927375]
- Fristad MA, Gavazzi SM, Soldano KW (1999). Naming the enemy: Learning to differentiate mood disorder “symptoms” from the “self” that experiences them. *Journal of Family Psychotherapy*, 10(1): 81–88. doi:10.1300/J085v10n01_07
- Fristad MA, Goldberg-Arnold JS, & Gavazzi SM (2002). Multifamily psychoeducation groups (MFPG) for families of children with bipolar disorder. *Bipolar Disorders*, 4, 254–262. doi:10.1034/j.1399-5618.2002.09073.x [PubMed: 12190715]
- Fristad MA, Goldberg Arnold JS, & Gavazzi SM (2003). Multi-family psychoeducation groups in the treatment of children with mood disorders. *Journal of Marital and Family Therapy*, 29(4), 491–504. doi:10.1111/j.1752-0606.2003.tb01691.x [PubMed: 14593691]
- Fristad MA, Goldberg Arnold JS, & Leffler JM (2011). *Psychotherapy for children with bipolar and depressive disorders*. New York, NY: The Guilford Press.
- Fristad MA, Verducci JS, Walters KS, & Young ME (2009). Impact of multifamily psychoeducational psychotherapy in treating children aged 8 to 12 years with mood disorders. *Archives of General Psychiatry*, 66(9), 1013–1021. doi:10.1001/archgenpsychiatry.2009.112 [PubMed: 19736358]
- Gavazzi SM, Fristad MA, & Law JC (1997). The understanding mood disorders questionnaire. *Psychological Reports*, 81, 172–174. doi:10.2466/PRO.81.5.172-174 [PubMed: 9293206]
- Goldstein BI, Birmaher B, Carlson GA, DelBello MP, Findling RL, Fristad M, ... & Youngstrom EA (In press). The International Society for Bipolar Disorders Task Force report on pediatric bipolar disorder: Knowledge to date and directions for future research. *Bipolar Disorders*.

- Goldstein TR, Birmaher B, Axelson D, Goldstein BI, Gill MK, Esposito-Smythers C, ...Keller M (2009). Psychosocial functioning among bipolar youth. *Journal of Affective Disorders*, 114, 174–183. doi:10.1016/j.jad.2008.07.001 [PubMed: 18715651]
- Goldstein TR, Ha W, Axelson DA, Goldstein BI, Liao F, Gill MK, ... Birmaher, B. (2012). Predictors of prospectively examined suicide attempts among youth with bipolar disorder. *Archives of General Psychiatry*, 69(11), 1113–1122. doi:10.1001/archgenpsychiatry.2012.650 [PubMed: 22752079]
- Harris AHS, Cronkite R, & Moos R (2006). Physical activity, exercise coping, and depression in a 10-year cohort study of depressed patients. *Journal of Affective Disorders*, 93(1–3), 79–85. doi: 10.1016/j.jad.2006.02.013 [PubMed: 16545873]
- Husky MM, Olfson M, He J, Nock MK, Swanson SA, & Merikangas KR (2012). Twelve-month suicidal symptoms and use of services among adolescents: Results from the National Comorbidity Survey. *Psychiatric Services*, 63(10), 989–996. [PubMed: 22910768]
- Hooley J, Orley J, & Teasdale JD (1986). Levels of expressed emotion and relapse in depressed patients. *British Journal of Psychiatry*, 148, 642–647. doi:10.1176/appi.ps.201200058 [PubMed: 3779242]
- Jonsson U, Bohman H, von Knorring L, Olsson G, Paaren A, & von Knorring A-L (2011). Mental health outcome of long-term and episodic adolescent depression: 15-year follow-up of a community sample. *Journal of Affective Disorders*, 130(3), 395–404. doi:10.1016/j.jad.2010.10.046 [PubMed: 21112639]
- Kaplan BJ, Crawford SG, Field CJ, & Simpson JSA (2007). Vitamins, minerals, and mood. *Psychological Bulletin*, 133(5), 747–760. doi:10.1037/0033-2909.133.5.747 [PubMed: 17723028]
- Lauth B, Arnkelsson GB, Magnússon P, Skarphéðinsson GÁ, Ferrari P, & Pétursson H (2010). Validity of K-SADS-PL (Schedule for Affective Disorders and Schizophrenia for School-Age Children--Present and Lifetime Version) depression diagnoses in an adolescent clinical population. *Nordic Journal of Psychiatry*, 64(6), 409–20. doi:10.3109/08039481003777484. [PubMed: 20438289]
- Mendenhall AN, Fristad MA, & Early TJ (2009). Factors influencing service utilization and mood symptom severity in children with mood disorders: Effects of multi-family psychoeducation groups (MFPGs). *Journal of Consulting and Clinical Psychology*, 77(3), 463–473. doi:10.1037/a0014527 [PubMed: 19485588]
- Miklowitz DJ, Axelson DA, George EL, Taylor DO, Schneck CD, Sullivan AE, ...Birmaher B (2009). Expressed emotion moderates the effects of Family-Focused Treatment for bipolar adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 48(6), 643–651. doi: 10.1097/CHI.0b013e3181a0ab9d [PubMed: 19454920]
- Morris SB, & DeShon RP (2002). Combining effect size estimates in meta-analysis with repeated measures and independent-groups designs. *Psychological Methods*, 7, 105–125. doi: 10.1037/1082-989X.7.1.105 [PubMed: 11928886]
- Ogles BM, Melendez G, Davis DC, & Lunnen KM (2001). The Ohio Scales: Practical Outcome Assessment. *Journal of Child and Family Studies*, 10(2), 199–212. doi:10.1023/A:1016651508801
- Pavuluri MN, Henry DB, Devineni B, Carbray JA, & Birmaher B (2006). Child mania rating scale: Development, reliability, and validity. *Journal of the American Academy of Child and Adolescent Psychiatry*, 45(5), 550–560. doi:10.1097/01.chi.0000205700.40700.50 [PubMed: 16601399]
- Plante DT & Winkelman JW (2008). Sleep disturbance in bipolar disorder: Therapeutic implications. *American Journal of Psychiatry*, 165, 830–843. doi:10.1176/appi.ajp.2008.08010077 [PubMed: 18483132]
- Weersing RV, Jeffreys M, Do M-CT, Schwartz KTG, & Bolano C (2017). Evidence base update of psychosocial treatments for child and adolescent depression. *Journal of Clinical Child & Adolescent Psychology*, 46(1), 11–43. doi:10.1080/15374416.2016.1220310 [PubMed: 27870579]
- Wood A, Kroll L, Moore A, & Harrington R (1995). Properties of the Mood and Feelings Questionnaire in adolescent psychiatric outpatients: A research note. *Journal of Child Psychology and Psychiatry*, 36(2), 327–334. doi: 10.1111/j.1469-7610.1995.tb01828.x [PubMed: 7759594]

Table 1:

Overview of Typical Session Structure

Adolescent Group	Parent Group
Groups meet together: Check-in: previous week's take-home projects are reviewed	
Identify and rate feelings using feelings chart and strength of feelings thermometer	
Share news of the week	Review parent-only take-home projects
Review past treatment content and preview the day's treatment content	
Deep breathing exercise	
Lesson of the Day <ul style="list-style-type: none">• Discuss day's topic• Engage in group activities• Discuss next take-home project	Discussion of the Day <ul style="list-style-type: none">• Discuss day's topic• Engage in group activities• Discuss next take-home project
Groups meet together: Review day's material	
Groups meet together: Discuss take-home project	
Groups meet together: Adolescents demonstrate deep breathing exercise	

Table 2:

Adolescent and Parent Group Session Content

Session	Adolescent Group	Parent Group
1	<ul style="list-style-type: none"> Mood disorders and their symptoms Mood disorders are nobody's fault Family Fix-It List goals aim to collaboratively identify two to three specific goals that can be achieved during the 8-week group Take-home project: identify teens' personal characteristics are separate from their symptoms^a 	<ul style="list-style-type: none"> Mood disorders and their symptoms Mood disorders and their symptoms in teens Course of mood disorders Monitoring to detect patterns of symptom exacerbation Take-home project: log teen's mood to become more aware of symptom fluctuations in the context of environmental concerns
2	<ul style="list-style-type: none"> Pharmacologic and nonpharmacologic interventions Medications and their side effects Role of therapy and assistance at school Healthy Habits (sleep, eating, exercise, or SEE) focus on healthy sleep routines, eating, and exercise to benefit overall health and mood regulation^b Take-home project: monitor salient Healthy Habit 	<ul style="list-style-type: none"> Pharmacologic and nonpharmacologic interventions Medications and their side effects Healthy Habits (sleep, eating, exercise, or SEE) with a focus on how family healthy habits can reduce stress in all family members through modeling, consistent reinforcement, and symptom monitoring Take-home project: mood-medication log (to monitor how medications and environmental concerns influence symptoms) and medication monitoring form (to ensure parents are aware of features of medicines like side effect management)
3	<ul style="list-style-type: none"> Coping and emotion regulation Construction of personalized "Tool Kit" including creative, active, rest & relaxation, and social (CARS) activities Review of people in teens' lives helpful to them in striving for health Take-home project: build Tool Kit Joint take-home project with parents: review educational and mental health teams 	<ul style="list-style-type: none"> School and mental health systems Improving understanding of school and mental health systems to improve ability to consume mental health care on behalf of their teen Joint take-home project with teens: review educational and mental health teams
4	<ul style="list-style-type: none"> Cognitive Behavioral Therapy rubrics Thoughts, feelings, and actions are connected Altering hurtful thoughts and actions to helpful ones to enhance mood Take-home project: note triggers that elicit negative mood state, record ensuing negative automatic thoughts and behaviors, and document more constructive replacement thoughts and behaviors 	<ul style="list-style-type: none"> Negative patterns in families dealing with mood disorders General developmental concerns for parents of teens, including alcohol and drug experimentation, sexual behavior, circadian rhythm changes, age-normative mood changes, and brain development salient to judgment and impulse control Take-home project: note triggers that elicit negative mood state, record ensuing negative automatic thoughts and behaviors, and document more constructive replacement thoughts and behaviors
5	<ul style="list-style-type: none"> Problem solving Steps to develop effective solutions for problems Role-play problem solving skills Take-home project: work through and document stages of problem solving with issues arising in the week 	<ul style="list-style-type: none"> Problem solving Reframing family conflict and symptom management needs as problems to be solved The role of clear and direct communication between parents and teens in problem solving
6	<ul style="list-style-type: none"> Verbal communication Verbal communication, including via social media Joint take-home project with parents: identify three ways teens and parents can adapt verbal communication to improve the relationship 	<ul style="list-style-type: none"> Verbal and nonverbal communication Verbal and nonverbal aspects of communication Recognizing communication patterns that further contribute to conflict Coaching and modeling effective communication Joint take-home project with teens: identify three ways teens and parents can adapt verbal communication to improve the relationship
7	<ul style="list-style-type: none"> Nonverbal communication: acceptance and change Nonverbal communication Dialectical behavior therapy conceptualization of acceptance and change Take-home project: practice nonverbal communication with parents Take-home project: reflect on what is in one's power to change (self, no others; present, not past or future) versus what to accept 	<ul style="list-style-type: none"> Challenging mood symptoms Specific skills needed to manage challenging mood symptoms Dialectical behavior therapy conceptualization of acceptance and change Take-home project: reflect on what is in one's power to change (self, no others; present, not past or future) versus what to accept

Session	Adolescent Group	Parent Group
8	Final review — Final review of content using trivia game format; teams divide into family units and small prizes are awarded — Remaining concerns addressed — Graduation ceremony	

Note.

a. see Fristad, Gavazzi, & Soldano, 1999 for a more detailed explanation.

b. borrowed from IF-PEP; see Fristad et al., 2011. There is clear evidence that sleep hygiene (Plante & Winkelman, 2008; Barbini, Bertelli, Colombo, & Smeraldi, 1996), dietary intake (Kaplan, Crawford, Field, & Simpson, 2007) and exercise (Harris, Kronkite, & Moos, 2006) all have a significant impact on youth mood and behavior.

Table 3:Paired Samples *t*-Tests of Parent Ratings from Pre- to Post-Treatment (*N* = 19)

Measures	Pre <i>M</i> ± <i>SD</i>	Post <i>M</i> ± <i>SD</i>	95% CI of the Difference ^b		<i>Df</i>	<i>t</i>	Cohen's <i>d</i>
			Lower	Upper			
OH Problems	25.3±14.5	16.2±9.8	4.9	13.4	18	4.51 ^{***}	1.19
OH Satisfaction	13.2±3.9	9.9±3.3	2.3	4.5	18	6.57 ^{***}	1.55
OH Hope	9.0±4.4	6.4±3.0	1.1	4.0	18	3.68 ^{**}	0.93
OH Functioning	43.6±14.7	50.4±17.1	-11.8	-1.8	18	-2.88 ^{**}	-0.68
MFQ	25.1±10.0	15.7±9.3	4.5	14.4	18	3.98 ^{***}	0.92
UMDQ ^a	47.5±8.0	52.9±5.6	-8.9	-2.0	16	-3.32 ^{**}	-0.85
CMRS	14.0±11.3	12.8±11.3	-1.6	4.0	18	0.90	0.21

Note. OH: Ohio Youth Problem, Functioning, and Satisfaction Scales – Parent Rating – Short Form; higher scores indicate: more problems; more dissatisfaction; more hopelessness; better functioning. MFQ: Mood and Feelings Questionnaire; higher scores indicate more depressive symptoms. UMDQ: Understanding Mood Disorders Questionnaire; higher scores indicate better understanding. CMRS: Child Mania Rating Scale; higher scores indicate more manic symptoms.

^aTwo parents did not complete the UMDQ.

[†]*p* < .10

* *p* < .05

** *p* .01

*** *p* .001.

^bUnits for 95% CI represent pre and post treatment score differences for each scale.

Table 4:Paired Samples *t*-Tests of Teen Ratings from Pre- to Post-Treatment (*N* = 19)

Measures	Pre <i>M</i> ± <i>SD</i>	Post <i>M</i> ± <i>SD</i>	95% CI of the Difference ^b		<i>Df</i>	<i>t</i>	Cohen's <i>d</i>
			Lower	Upper			
OH Problems	30.4±12.6	19.4±10.6	4.2	17.8	18	3.39**	0.78
OH Satisfaction ^a	11.4±3.9	9.6±3.6	0.3	3.3	17	2.52*	0.60
OH Hope ^a	8.4±4.4	8.2±4.1	-1.4	1.9	17	0.28	0.07
OH Functioning	49.9±13.4	55.6±12.3	-12.7	1.2	18	-1.74 [†]	-0.40
MFQ	26.3±14.3	21.8±14.1	-0.3	9.4	18	1.97 [†]	0.45
UMDQ ^a	40.4±9.8	45.7±12.4	-9.4	-1.3	17	-2.76*	-0.68
COPE+	36.3±9.7	46.9±9.1	-16.0	-5.3	16	-4.21***	-1.02
COPE-	13.0±3.6	13.1±5.2	-3.5	3.3	16	-0.07	-0.02

Note. OH: Ohio Youth Problem, Functioning, and Satisfaction Scales – Youth Rating – Short Form; higher scores indicate: more problems; more dissatisfaction; more hopelessness; better functioning. MFQ: Mood and Feelings Questionnaire; higher scores indicate more depressive symptoms. UMDQ: Understanding Mood Disorders Questionnaire; higher scores indicate better understanding. COPE+: Adaptive coping on the Brief COPE; higher scores indicate more frequent use of these coping styles. COPE-: Maladaptive coping on the Brief COPE; higher scores indicate more frequent use of these coping styles.

^aOne teen did not complete the OH Satisfaction or Hope Scales; another teen did not complete the UMDQ.

[†] *p* < .10

* *p* < .05

** *p* < .01

*** *p* .001.

^bUnits for 95% CI represent pre and post treatment score differences for each scale.

Table 5:Parent Satisfaction Scale Mean Item Ratings^a (*N* = 19)

Item	<i>M</i>	<i>SD</i>
<i>Attending this group helped me understand...</i>		
My child's symptoms	4.3	0.9
My child's medication	3.7	1.0
How to obtain appropriate therapy	4.0	0.9
How to manage my child's mood symptoms	4.3	0.8
What to do/not to do at home to help my child	4.5	0.7
How to work with the school to get the help my child needs	4.3	0.9
My child's problems are not "my fault"	4.3	0.8
<i>Meeting in a group format made me feel...</i>		
Uncomfortable sharing personal information (reversed)	3.8	1.5
Supported – knowing I'm not the only parent dealing with these sorts of problems	4.5	1.0
<i>I benefitted from...</i>		
The slides/workbook	4.1	0.9
The group facilitators' input	4.4	0.7
Other group members' input	4.5	0.9
My child's participation in his/her group	4.3	0.8
The family projects	4.1	0.9
The parent-only worksheets	4.1	0.7
<i>My child benefitted from...</i>		
His/her participation in group	4.4	0.8

^a Items were rated on a 1 (Strongly Disagree) to 5 (Strongly Agree) Likert scale

Table 6:Teen Satisfaction Scale Mean Item Ratings^a (N= 19)

Item	<i>M</i>	<i>SD</i>
<i>Attending this group helped me...</i>		
Learn about depression/bipolar in people my age	4.3	0.6
Learn about the medication I take	3.7	1.1
Get along better in my family	3.8	1.2
Get along better with my friends	4.3	0.9
Get along better at school	4.0	1.4
Deal with the problems that come with depression/bipolar disorder	4.3	0.8
Learn it's not my fault that I have depression/bipolar disorder, but I can make choices that help me do my best	4.5	0.8
<i>Meeting in a group format made me feel...</i>		
Uncomfortable talking about myself (<i>reversed</i>)	3.7	1.4
Less alone, knowing I'm not the only one dealing with these sorts of problems	4.3	1.0
<i>I liked...</i>		
Meeting with other people my age	4.4	0.8
Doing role plays	3.0	1.3
Other activities/discussions	3.7	1.1
My group leader(s)	4.4	0.7
<i>My parents' behavior toward me is...</i>		
Better since we came to group	4.2	1.0
Worse since we came to group (<i>reversed</i>)	4.4	1.2

^aItems were rated on a 1 (Strongly Disagree) to 5 (Strongly Agree) Likert scale