

Pilot Evaluation of an ACT Group Intervention for Adolescents Implemented in Integrated Primary Care

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Abstract

Background: Few investigations have explored Acceptance and Commitment Therapy (ACT) interventions for adolescents, particularly within real-world settings. This project examined feasibility and clinical outcomes of a novel manualized group-based ACT intervention for clinic-referred adolescents with internalizing disorders in integrated primary care.

Method: Sessions attended and therapeutic homework completion were used to examine feasibility. Clinical outcomes were evaluated using paired samples t-tests of pre-post self-report ratings. ITT methodology was used with last observation carried forward employed.

Results: Most participants were white (94.7%) and female (73.7.5%), and mean age was 15.02 (SD = 1.6). 111 attended at least one session, and 104 of these youths completed at least one clinical outcome measure. The average participant attended 5.83 sessions and completed 48.2% of the homework. There were no significant improvements in depression symptoms; however, psychological flexibility, total internalizing symptoms, and anxiety symptoms showed significant improvement at small effects sizes. Goal attainment scale ratings evidenced significant improvements at medium to large effects sizes. Between 17.5% and 38.7% of participants evidenced reliable change; no demographic or baseline clinical scores predicted reliable change in outcome measures

Discussion: Improvements in psychological inflexibility, internalizing symptoms, and goal attainment scores provide preliminary evidence of this efficient group-administered ACT protocol for adolescents administered in an integrated primary care setting. More rigorous evaluation of implementation and effectiveness relative to a comparison treatment is needed.

Introduction

Approximately 10-20% of youth have a diagnosable anxiety disorder and 7-11% have a major depressive disorder diagnosis. ACT may be a viable treatment option for youth with these disorders. ACT has been shown to be effective for adult samples and has demonstrated moderate pre-to-post-treatment symptom reduction effects for both anxiety and depression. Research examining ACT for adults has indicated that it can be effective when delivered via group therapy modalities and within adult primary care settings. The literature base examining the use of ACT with youth is still nascent, but the existing evidence is promising. Adolescents who have received ACT show improvements in depressive symptoms and anxiety at post-treatment. Moreover, an ACT-based group intervention for youth resulted in improvements at post-treatment and three-month follow-ups. No studies to date have examined ACT group therapy for adolescents in a primary care setting. Establishing the effectiveness of such an intervention in a pediatric primary care setting may result in increased access to care and reduction of stigma. The purpose of this study was to conduct a preliminary evaluation of feasibility and treatment outcomes of a novel, group-based ACT intervention for adolescents delivered in an integrated primary care setting.

Methods

Participants

Participants were adolescents (aged 12-18 years) who attended an ACT group between Fall 2015 and Summer 2017 in one of three Geisinger IPC clinics. These patients were referred by their behavioral health to attend group after an initial diagnostic evaluation. Patients typically referred to group included those with primary depression and/or anxiety disorder diagnoses.

Procedure

A weekly 90 minute group was held for 8-10 weeks (total length depended upon the clinic and group cycle). Each session focused on an ACT-related process (e.g., mindfulness, values-based actions, cognitive defusion) and included both didactic and experiential exercises. Patients were assigned weekly homework to practice therapy skills.

Measures

Group attendance and weekly homework completion data were collected each session. Primary outcomes measures (pre-post treatment) included:

- Revised Child and Anxiety Depression Scale (RCADS)
- Avoidance and Fusion Questionnaire for Youth (AFQ-Y)
- Youth Top Problems (YTP) goal attainment scale ratings

Data Analysis Plan

Paired samples t-tests were used to examine change in primary outcome measures. For pre-post measures, participants who did not complete outcome measures at the last appointment had their pre-treatment observations carried forward (LOCF) . For weekly measures, the last observed measure was used. Modified Cohen’s *d* adjusted for paired samples t-tests were used to determine effects sizes (Dunlop et al., 1996). Jacobson and Traux (1981) reliable change index (RCI) was computed for each outcome measure. Logistic regression was used to examine predictors of reliable change.

Results

Demographics Characteristics

111 total youths averaging 15.02 years old (SD=1.56) who were mostly White (94.7%) and female (73.7%) enrolled in the intervention during the study period and attended at least one session. 104 of these adolescents completed at least one outcome measure at baseline.

Feasibility

The average participant attended 5.8 treatment sessions, and returned to session with homework completed 48.2% of the time.

Treatment Outcomes

49 participants were present at the last session of group and completed RCADS and AFQ-Y. When employing LOCF, 91-99 participants could be included in analyses. For YTP weekly ratings, 104 individuals had two goals rated on at least one occasion, and 99 of those 104 had a third goal.

Table 1 shows the results of the paired samples t-test and RCI. There was a significant reduction in total internalizing symptoms at a small effects size, which appear to mostly be driven by improvements in anxiety; depression symptoms did not change significantly.

Table 1. Results of paired samples t-test, descriptive statistics, and reliable change index for clinical outcome measure by measurement occasion.										
Outcome	Baseline		Post-Treatment		n	95% CI for Mean Difference		RCI		
	M	SD	M	SD		r	t	d	%	
RCADS Total	59.50	25.28	52.40	29.87	92	0.67, 13.54	.86*	2.23*	0.12	18.4
RCADS Depression	13.83	6.53	13.81	8.21	92	-.97, 1.00	.81*	0.03	0.00	5.4
RCADS Anxiety	48.03	21.59	44.55	22.81	91	0.99, 5.96	.86*	2.78*	0.16	17.5
AFQ-Y	32.87	13.87	29.94	14.50	99	1.36, 4.50	.85*	3.71*	0.21	19.1
YTP Goal 1	8.04	1.90	6.00	2.84	104	1.51, 2.57	.39*	7.60*	0.82	38.7
YTP Goal 2	7.40	1.97	6.09	2.78	104	.74, 1.89	.26*	4.55*	0.54	28.8
YTP Goal 3	7.29	2.02	5.91	2.53	99	.87, 1.89	.39*	5.38*	0.60	26.1
* p < .05.										

Participants evidenced significant improvements in psychological inflexibility as measured by the AFQ-Y at a small effects size, providing evidence that this treatment protocol does evidence meaningful reductions in the purported treatment mechanism of ACT. Individualized goal attainment on the Youth Top Problems inventory improved at a large effect size for Goal 1, and medium effects sizes for Goals 2 and 3.

A substantial proportion of participants improved according to the RCI metric across outcome measures, with the exception of the RCI Depression subscale. As suggested by the relatively higher effects sizes for YTP weekly ratings, these scales also had a higher proportion of participants who evidenced reliable change.

Logistic regression models with RCI status as the outcome variable evidenced no significant predictors when demographic variables and baseline ratings on RCADS and AFQ-Y ratings were in the model.

Discussion

Primary Findings

Results showed that the average participant attended the majority of scheduled group sessions and completed group homework about half of the time, suggesting adequate feasibility in terms of participant engagement in such a protocol in an integrated primary care setting. However, due to the geography in which the study was conducted, there is limited diversity within our sample.

Moreover, the group-administered ACT protocol evidenced meaningful improvements in anxiety symptoms and psychological inflexibility, but not in depression symptoms..

These findings lend preliminary evidence that this ACT protocol successfully targets psychological flexibility, the purported treatment mechanism of ACT. More research is needed to determine why this protocol led to greater improvements in symptoms of anxiety than depression.

Limitations

Lack of a counterfactual condition warrants caution when making determinations about the effectiveness or scalability of the treatment at this time. Lack of post-treatment data for those who did not attend the last session of group further limits conclusions that can be drawn.

Nearly half of participants for whom we had baseline data did not have post-treatment data. Our ITT analyses are intended to be a conservative estimate of treatment effects by assuming that no deterioration in functioning occurred for those who we have no post-treatment outcome data. However, we cannot be sure that these individuals did not deteriorate.

Conclusion

This study represents a preliminary evaluation of feasibility and treatment outcomes of an adolescent ACT group therapy program delivered in an integrated care setting.

The intervention substantially improved anxiety symptoms, psychological inflexibility, and idiographic goals for a substantial proportion of participants.

Future research would benefit from including a counterfactual condition, develop implementation methods to obtain a greater proportion of post-treatment data, and studying predictors and moderators of treatment response.

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