

## ORIGINAL ARTICLE

# Attachment-based family therapy versus nondirective supportive therapy for lesbian, gay, bisexual and questioning adolescents with depression, and suicidal ideation: An exploratory study

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## Abstract

**Introduction:** Lesbian, gay, bisexual, and questioning (LGBQ) adolescents are particularly at risk for suicidal ideation; however, little clinical research is focused on treating this population. Attachment-based family therapy (ABFT) is among the few empirically supported youth suicide treatments adapted for LGBQ adolescents. The purpose of this exploratory study is to determine the differential treatment effects and rates of change for LGBQ and heterosexual adolescents with depression and suicidal ideation receiving either ABFT or family enhanced nondirective supportive therapy (FE-NST).

**Method:** The sample included 129 adolescents (31% LGBQ), ages 12–18 randomized to the two treatment groups. Multilevel modeling was used to examine individual changes in depression and suicidal ideation over the 16-week treatment.

**Results:** Results revealed that LGBQ adolescents in the ABFT condition showed a greater rate of reduction in depressive symptoms over treatment, slope =  $-0.94$ ,  $p < 0.001$ , than did LGBQ adolescents in the NST condition, slope =  $-0.41$ ,  $p = 0.12$ . Heterosexual adolescents showed symptom reduction in both treatment conditions (ABFT slope =  $-0.47$ ,  $p < 0.001$ ; NST slope =  $-0.79$ ,  $t(113) = -7.48$ ,  $p < 0.001$ ). Changes in suicidal ideation were found across time, but not across conditions.

**Conclusion:** LGBQ adolescents in the ABFT condition had a sharper decrease in depressive symptoms and better outcomes at week 16.

## KEYWORDS

adolescents, attachment-based family therapy, depression, LGBQ, suicide

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## INTRODUCTION

Suicide is a serious and increasing public health problem in the United States. In 2021, suicide was the second leading cause of death for 10–24-year-olds and deaths increased by over 50% since 2000 for this age group (CDC, 2023). Lesbian, gay, bisexual, and questioning (LGBQ) youth are particularly at risk (Liu & Mustanski, 2012; Scannapieco et al., 2018). While the majority of LGBQ adolescents are healthy and resilient (Saewyc, 2011), between 15% and 40% of LGBQ adolescents make a suicide attempt each year—rates that are two to four times higher than those of their heterosexual counterparts (Caputi et al., 2017; Liu et al., 2020).

### Factors associated with suicidality

Sexual orientation does not inherently contribute to suicidality. Instead, mediating factors such as discrimination, victimization, family challenges, and rejection lead to low self-esteem, depression, hopelessness, and social isolation (Baams et al., 2015; Burton et al., 2013; Fulginiti et al., 2020; Hirsch et al., 2016). These mediating variables in turn may lead to suicidality among LGBQ adolescents.

### Victimization and bullying

Sexual minority youth experience more frequent and vicious victimization than heterosexual adolescents (Burton et al., 2013; Goodenow et al., 2018). Victimization, particularly when related to one's LGBQ identity, has been found to play a role in predicting suicidality among sexual minority youth (Baams et al., 2015; Burton et al., 2013; Hatchel et al., 2019). Moreover, some youth internalize societal biases and stigmatizing attitudes toward sexual minority individuals (i.e., internalized homophobia). Internalized homophobia has been linked to suicidality and depression among LGBQ individuals (Baams et al., 2018).

### Depression and hopelessness

Due to increased victimization, it is not surprising that LGBQ adolescents and young adults report higher rates of depression and hopelessness compared with their heterosexual peers (Marshall et al., 2013; Scannapieco et al., 2018; Shearer et al., 2016). Depression and feelings of hopelessness are robust risk factors that are known to predict suicidal ideation and behavior (Hirsch et al., 2016; Mustanski & Liu, 2012). In a recent study, Fulginiti et al. (2020) tested a serial mediation model for LGBQ youth experiencing

suicidality. The model revealed that minority stress (e.g., experiences of discrimination, stigmatization) was associated with depression and PTSD symptoms, which in turn was linked with hopelessness, leading to suicidal ideation. Depression and hopelessness among LGBQ youth may explain how sexual minority youth are at higher risk for suicidality than their heterosexual counterparts.

### Parent–adolescent relationship quality

One prominent risk and protective factor associated with adolescent suicidality is the quality of parent–adolescent relationship(s). A substantial amount of research has linked parental criticism, control, emotional unresponsiveness, absence of support, and rejection to adolescent suicidality (Diamond et al., 2021). LGBQ adolescents may be particularly at risk for parental conflict, parental criticism, and parental rejection related to their sexual orientation (Newcomb et al., 2019; Puckett et al., 2015; Ryan et al., 2009). While parents may become more accepting of their child's sexual orientation and same-gender partnerships over time (Samarova et al., 2013), many initially reject, are intolerant of, or express ambivalence toward their adolescent's sexual orientation (D'Augelli, 2003). Parental rejection of LGBQ identity has been linked to youth depression and suicidality (Puckett et al., 2015, 2017; Rothman et al., 2012; Ryan et al., 2009). On the other hand, LGBQ adolescents who report high levels of parental support and good communication report fewer mental health symptoms (Hatchel et al., 2019; Rothman et al., 2012; Ryan et al., 2010; Wigderson et al., 2019). Moreover, when parents accept their adolescent's sexual orientation, they are positioned to support, guide, and advocate for them (Mustanski & Liu, 2012; Shilo & Mor, 2014). Family issues are modifiable factors that have been found to have a substantial impact on LGBQ youth.

### Treatments for LGBQ youth for suicide

Potent treatments are emerging that address adolescent depression and suicide (see Diamond et al., 2021 for a review); however, little research has focused on LGBQ youth (see Russon, Smithee, et al., 2021; Russon, Washington, et al., 2021 for a review). One treatment that has been modified and tested for this population, attachment-based family therapy (ABFT), targets both family and individual processes contributing to depression and suicide in adolescents (Diamond et al., 2014). ABFT has been found to be efficacious in clinical samples where information on sexual orientation was not gathered (Diamond et al., 2010), as well as in LGBQ samples when the treatment or delivery

was adapted (Diamond et al., 2012; Russon, Smithee, et al., 2021; Russon, Washington, et al., 2021). ABFT (original version) targets suicidality and depression by addressing the relational ruptures thwarting trust between the parent and adolescent. Modifications of ABFT for LGBQ adolescents include addressing microaggressions in the family, exploring caregiver beliefs and emotional responses associated with the youth's sexual orientation, and promoting caregiver acceptance (Diamond et al., 2012). No study to date has compared the efficacy of ABFT, or its modified version, for LGBQ adolescents with other treatments, nor has a study compared treatments for LGBQ versus heterosexual adolescents.

## Present study

Using data from a recent clinical trial (Diamond et al., 2019), the purpose of this study was to determine differential treatment effects and rates of change for suicidal LGBQ and heterosexual adolescents in two treatment conditions, ABFT (original version) and active control, Family Enhanced Nondirective Supportive Therapy (FE-NST; Brent & Kolko, 1991; Levy & Diamond, 2010). Although ABFT targets family processes, FE-NST is an individual treatment aimed to provide active listening and support to adolescents and education to parents. We proposed two hypotheses. LGBQ adolescents in ABFT would have faster rates of decline in depression and suicidal ideation than (1) those in FE-NST and (2) heterosexual adolescents in either condition. Given the influence of family factors on adolescent depression and suicidality, as well as the increased likelihood of LGBQ youth experiencing rejecting, intolerant, and/or ambivalent behavior from parents, we hypothesized that addressing the quality of family relationships in ABFT, as a core mechanism of treatment, might be particularly impactful for LGBQ youth.

## METHOD

In this study, we utilized weekly and bi-weekly outcome measures for suicidal ideation and depression, respectively, to determine differences in treatment response trajectories between each condition. These measures included instruments used in prior ABFT research with LGBQ youth (Diamond et al., 2012). Eligibility for the treatment study included severe suicidal ideation (SIQ-JR > 31; Reynolds & Mazza, 1999) and moderate to severe depression (BDI-II > 20; Beck et al., 1996) at two consecutive pretreatment assessment time points. At least one primary caregiver was required to participate in treatments and assessments. Exclusion criteria included: (a) evidence

of imminent risk of harm to self or others that could not be safely managed on an outpatient basis; (b) evidence of psychotic features; (c) evidence of severe cognitive impairment based on educational records, parent report, and/or clinical impression; and (d) non-English speaking. Additionally, adolescents who began psychiatric medication within 3 weeks of the initial pretreatment assessment were ineligible for participation.

## Sample

The sample included 129 outpatient adolescents, ages 12–18 ( $M = 14.87$ ,  $SD = 1.68$ ) recruited for an NIMH-funded clinical trial (see Diamond et al., 2019). While the majority of adolescents were heterosexual, 31% identified as Lesbian/Gay (7%), bisexual (17%), or questioning (7.0%). The majority of adolescents were racial minorities with 64 identifying as African-American (49.7%), 37 White (28.7%), 10 bi-racial or multiracial (7.8%), 3 Asian (2.3%), 2 American-Indian or Alaskan Native (1.6%), and 1 Native Hawaiian or Pacific Islander (0.8%). Twelve adolescents identified as “other” (9.3%). The majority of the sample was non-Hispanic/Latino (84.5%). A large majority of the sample were female (81.9%). Only 41.2% met the criteria for major depressive disorder, 3.9% met the criteria for dysthymia, and 36.3% met the criteria for an anxiety disorder on the Diagnostic Interview Schedule for Children (DISC-IV; Shaffer et al., 2000). Forty-two percent of participants had made a suicide attempt in their lifetime and 57.5% reported engaging in nonsuicidal self-injury as indicated by the Columbia-Suicide Severity Rating Scale (C-SSRS; Posner et al., 2011).

## Treatment conditions

### Attachment-based family therapy

Using five treatment tasks, ABFT aims to repair ruptures in the attachment relationship and establish or resuscitate a secure base that can reduce family stress or buffer against stressors outside the home (e.g., bullying). Task one focuses on establishing improvement in family relationships with parent and child as the first goal of therapy. Task two helps the adolescent alone identify and articulate their perceived experience of attachment failures and prepare to discuss them with their caregivers. Task three encourages caregivers alone to consider how current stressors and/or their own intergenerational attachment legacies affect their parenting style. This softens caregivers and makes them more receptive to learning new parenting skills. In task four, the adolescent and caregiver

discuss, understand, and try to resolve these past attachment ruptures. As caregivers acknowledge adolescents' thoughts, feelings and memories, adolescents become more emotionally regulated and cooperative. Task five focuses on using the caregivers as a secure base to support the adolescent's exploration of competency and autonomy. A total of 28 LGB participants were assigned to the ABFT treatment condition.

## Family enhanced nondirective supportive therapy

FE-NST is a modification of an individual, nondirective supportive treatment manual (Brent & Kolko, 1991; Levy & Diamond, 2010). This is a brief, 16–20 session therapy designed to build a working relationship between adolescent and therapist through active listening, attending to affect, reflections, validations, and supporting meaning-making. The active treatment factors in this approach are common across therapeutic approaches (Sprenkle et al., 2013). In this study, individual sessions were supplemented with four parent education sessions and one conjoint session with caregivers and adolescents. The parent education sessions occurred without the adolescent and with a parent educator who was not the adolescent's primary therapist. Parent education session topics included suicide risk assessment, understanding depression, advocacy and resource development, and problem-solving. The conjoint session occurred at the beginning of treatment and was conducted by the adolescent's primary therapist. This session involved helping the family articulate their concerns and engage in safety planning. There were 13 LGB youth assigned to this control condition.

## Measures

### Depression

The BDI-II (Beck et al., 1996) is a widely used, 21-item self-report instrument designed to assess the severity of depressive symptoms in adults and adolescents/young adults. The BDI-II has high internal reliability ( $\alpha=0.91$ ) and is highly and positively correlated with other measures of depression. The sensitivity and specificity for detecting depression in psychiatric subjects has been established.

### Suicidal ideation

The SIQ-JR (Reynolds & Mazza, 1999) is a 15-item version of the Suicidal Ideation Questionnaire designed to

evaluate suicidal ideation over the past. It is based on Reynolds' theoretical notion of suicidality forming a continuum ranging from thoughts of death, thoughts of wanting to be dead, general and specific suicidal plans, preparations for carrying out plans, and actual suicide attempts. It was originally designed for younger adolescents/young adults but has been frequently used in studies with older adolescents/young adults. The measure was found to be internally consistent ( $\alpha=0.94$ ) with a test-retest reliability of 0.89 over approximately 3 weeks (Reynolds & Mazza, 1999). For the purposes of the larger study, this research team developed a weekly version of the measure in order to increase sensitivity in tracking ideation.

## Procedure

Participants were recruited from primary care centers, emergency departments, outpatient facilities, inpatient hospitals, schools, churches, and the general community. Depression was measured every 2 weeks across the 16-week treatment, and suicidal ideation was measured weekly. Participants completed these measures before seeing the therapist at their weekly sessions. If participants did not come to their appointment, a research assistant would attempt to collect the data over the phone. As such, weekly and bi-weekly data did not necessarily correspond with time of treatment sessions.

## Analytic approach

Multilevel modeling was used to evaluate the research hypotheses, which accounts for the interdependence of repeated measurements and flexibly allows for different assessment schedules and missed assessments (Snijders & Bosker, 2012). Models were estimated in MPlus version 8.4 (Muthén & Muthén, 2017) using full information maximum likelihood to handle missing data in the outcome variables of depressive symptoms and suicidal ideation, a strategy that produces unbiased estimates in simulation studies (Grund et al., 2018) and which allows for individuals with as few as one assessment point to be included in the model (Snijders & Bosker, 2012). Models were tested including both outcomes simultaneously (separate models were also tested, yielding no change in results). Outcomes were allowed to correlate in all models, and random slopes and intercepts were allowed to covary. Standardized coefficients were computed based on total standard deviations, as recommended by Lorah (2018).

At the within-person level, scores on depressive symptoms and suicidal ideation were predicted by time. Time was scored so the final time point was 0 (and previous



time points had negative values separated by 1, e.g.,  $-1$ ,  $-2$ ,  $-3$ ). Therefore, intercepts reflect expected depressive symptoms and suicidal ideation scores at the last week of treatment, and slopes reveal predicted week-to-week change. A model comparison approach was used to determine the best model of the effect of time (including linear and quadratic, and fixed and random effects).

In subsequent models, at the between-person level, dichotomously scored predictors of LGBQ status, treatment type, and the LGBQ  $\times$  treatment interaction were added. These predictors were used to explain interindividual differences in rates of weekly change and in expected scores at the final time point. No cases had missing values on the key between-person predictor variables. Control variables of age, gender, minority race status, and socioeconomic status were selected based on associations with depression or suicidal ideation in separate outcome data. Only one individual was missing any of these variables (socioeconomic status); listwise deletion was used to handle this case in the final model only.

## RESULTS

### Preliminary analyses

Almost half of the participants (49.6%) completed at least six assessments of depression across the 16 weeks (with 39.3% completing 3–5), and most participants (63.3%) completed at least six repeated measures across treatment (with 20.0% completing 3–5). Number of completed assessments was not significantly related to baseline suicidal ideation, treatment condition, or LGBQ status (number of completed suicidal ideation measures was associated with baseline depression;  $r=0.27$ ,  $p=0.003$ ). Intraclass correlations were examined to determine the relative amount of between- and within-person variability. The intraclass correlations were 0.69 for depression and 0.51 for suicidal ideation; that is, 69% and 51% of the variation in these outcomes, respectively, were at the between-person levels, with the remainder at the within-person levels.

### Model selection

Model information indices are found in [Table 1](#). Of the five tested models, the linear random model showed the best performance. This conclusion was also supported by statistical significance tests of coefficients in the linear random model (top of [Table 2](#)). These coefficients suggested that, on average, there were significant decreases in both depressive symptoms and suicidal ideation over time; for both outcomes, there was a predicted decrease of 0.05

TABLE 1 Model information indices.

Model	AIC	BIC
Unconditional	12842.71	12882.42
Linear, fixed	12655.72	12705.36
Linear, random	<b>12594.80</b>	<b>12664.30</b>
Quadratic, fixed	12659.61	12719.18
Quadratic, random	12595.25	12694.53

Note: The unconditional model includes no effect of time. Bolded text indicates the selected model.

standard deviations for each subsequent week. There was also significant variance in the intercepts and linear slopes of time on both outcomes between individuals, suggesting that scores at Week 16 and rates of weekly change differed across individuals. On the other hand, competing models (not shown) suggested that quadratic fixed effects of time were not statistically significant for either outcome. Therefore, all further analyses were conducted modeling a linear slope of time that was allowed to vary between individuals.

### Primary analyses

Then, treatment type, LGBQ status, and the Treatment  $\times$  LGBQ interaction were entered as predictors of both the intercepts (predicted depressive symptoms and suicidal ideation at Week 16) and the slopes (predicted weekly rates of change in depression and suicidal ideation). Estimates from this model are found in the middle rows of [Table 2](#). Only the Treatment  $\times$  LGBQ interaction had a significant (negative) association with the rate of weekly change. Relative to heterosexual individuals, LGBQ individuals reported higher levels of both depressive symptoms and suicidal ideation at Week 16, and there was a significant (negative) interaction between treatment and LGBQ status for depressive symptoms.

To further explore these significant interactions, simple slopes were calculated by recentering the LGBQ and treatment variables (e.g., LGBQ = 0 and heterosexual = 1; ABFT = 0; NST = 1), following recommendations by Curran et al. (2006). Estimates for mean intercepts and slopes are found in [Table 3](#), and slopes are graphed in [Figure 1](#). Although there were significant weekly decreases in depressive symptoms for heterosexual individuals in both treatments, and LGBQ individuals in ABFT, there was not a significant decrease in depressive symptoms for LGBQ individuals in NST. Moreover, although LGBQ individuals in ABFT had the lowest predicted depressive symptoms at Week 16 of any of the groups, LGBQ individuals in NST had the highest (a difference of approximately 0.72 standard deviations). This pattern of findings suggests that, although effects were similar for heterosexual individuals

TABLE 2 Coefficients and standardized estimates from multilevel models.

Model	Coefficients (partially standardized)			
	Rate of weekly change (slope)		Outcome at week 16 (intercept)	
	Depressive symptoms	Suicidal ideation	Depressive symptoms	Suicidal ideation
Time only				
Mean of random effect	-0.69*** (-0.05***)	-1.03*** (-0.05***)	18.37	9.99
Variance of random effect	0.23** (0.02**)	0.84** (0.04**)	155.89*** (11.14***)	234.20*** (12.07***)
Treatment and LGBQ				
Treatment type	0.31**** (0.02****)	0.36 (0.02)	4.10 (0.29)	3.27 (0.17)
LGBQ status	0.37 (0.03)	0.74**** (0.04****)	10.24* (0.73*)	12.60* (0.64*)
Treatment × LGBQ	-0.84* (-0.06*)	-0.84 (-0.04)	-14.55* (-1.04*)	-12.16 (-0.63)
Treatment and LGBQ effects, controlling for covariates				
Treatment type	0.25 (0.02)	0.33 (0.02)	3.61 (0.26)	2.48 (0.13)
LGBQ status	0.29 (0.02)	0.59 (0.03)	8.98**** (0.64****)	12.29* (0.63)
Treatment × LGBQ	-0.66**** (-0.05****)	-0.74 (-0.04)	-13.08* (-0.93*)	-11.51 (-0.59)

Note: Standardized coefficients are based on total standard deviations for each outcome (y-standardized only). Standardized coefficients and p-values were not included in the mean random intercept to avoid interpretive confusion. LGBQ status was coded as 0 = heterosexual, 1 = LGBQ. Treatment was coded as 0 = NST, 1 = ABFT. Covariates were age, gender (binary), racial minority status, and socioeconomic status.

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001; \*\*\*\*p < 0.10.

TABLE 3 Simple slopes and intercepts for depressive symptoms.

Model	Rate of weekly change (slope)	Outcome at week 16 (intercept)
Heterosexual, NST	-0.79*** (-0.06***)	16.17
Heterosexual, ABFT	-0.47*** (-0.03***)	20.27
LGBQ, NST	-0.41 (-0.03)	26.40
LGBQ, ABFT	-0.94*** (-0.07***)	15.96

Note: Standardized coefficients are based on total standard deviations. Standardized coefficients and p-values were not included for the mean random intercepts to avoid interpretive confusion.

\*\*\*p < 0.001.

regardless of treatment type, ABFT was associated with more marked improvement for LGBQ individuals compared with NST. Notably, alternative models were also tested in which the baseline time point was assigned the value of 0 in order to investigate differences at baseline; none of these revealed significant effects of treatment type, LGBQ status, or treatment x LGBQ status, suggesting these group differences were primarily a result of change during treatment and not preexisting group differences.

Finally, an additional model was tested that included control variables (age, binary gender, racial minority status, and SES). As seen in Table 2, although none of these were significant predictors of depressive symptoms or suicidal ideation slopes or intercepts except racial minority

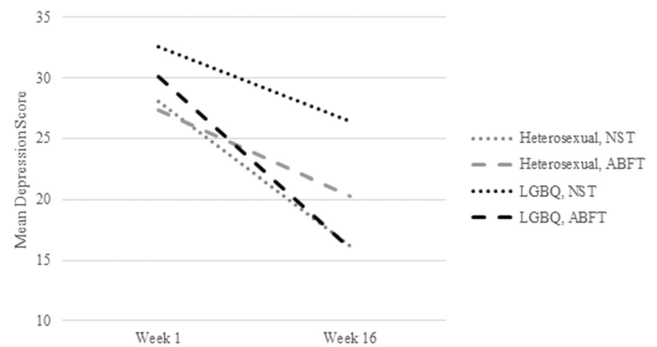


FIGURE 1 Rates of change in average depression scores over the course of 16 weeks of treatment.

status (negatively associated with the rate of change of suicidal ideation), the treatment x LGBQ interaction on the depressive symptom slope and the effect of LGBQ status on depressive symptoms became just nonsignificant (p = 0.06 and p = 0.07, respectively).

## DISCUSSION

This study supports the emerging body of literature on evidence-based psychotherapy approaches for LGBQ youth. Approaches to date have been tested to support these youth (Russon et al., 2021a; Russon, Washington, et al., 2021) and this represents one of the scarce clinical studies focused on LGBQ adolescents with suicidal ideation. In this small,

exploratory study, LGBQ adolescents in the ABFT condition had the greatest weekly decreases in depressive symptoms compared with (1) LGBQ youth in the FE-NST condition and (2) heterosexual adolescents in either condition. Interestingly, the same was not true for suicidal ideation. LGBQ and heterosexual adolescents had similar decreases in suicidal ideation over time in both conditions. In other words, while LGBQ youth in both conditions experienced significant reductions in depression, youth in ABFT experienced relief more quickly than those in FE-NST.

Approaches that result in early response rates may prove to be particularly useful to vulnerable youth who have historically had higher rates of dropout (Kim et al., 2012). There are several possibilities as to why depression was mitigated more swiftly for LGBQ youth in ABFT compared with their LGBQ counterparts in FE-NST and heterosexual youth in both conditions. First, in ABFT, families are directed by the therapist to have open conversations about the interpersonal factors that contribute to depression (Diamond et al., 2014). Second, ABFT may have targeted LGBQ-specific factors associated with depression early on in the treatment, while sexual orientation and any associated family rejection or ambivalence might not have been addressed at all in FE-NST. Indeed, the ABFT model supports youth in identifying and discussing the contextual factors that lead to feelings of isolation as early as the second session (Diamond et al., 2012; Ibrahim et al., 2018). Therapists practicing ABFT in this study were trained to ask about sexual orientation, gender expression, and romantic relationships in order to join with the adolescent and propel case conceptualization. Third, the content-focus of family sessions in ABFT might have contributed another element to explain the faster relief for LGBQ youth compared with their peers. Relational repair in ABFT is centered on feeling abandonment/rejection or microaggressions experienced by the parent or caregiver (Diamond et al., 2012, 2014). Caregivers are trained to be responsive and sensitive to these experiences even if they could not yet accept their child's sexual orientation (Ibrahim et al., 2018; Russon, Smithee, et al., 2021; Russon, Washington, et al., 2021). Finally, it is possible some LGBQ youth in the ABFT condition came from accepting families. Several components of the ABFT approach may have fostered interventions that were particularly meaningful to LGBQ youth even when families were accepting. After relationship repair, ABFT therapists promote caregivers' support of their adolescent's identity development (Diamond et al., 2014; Diamond & Shpigel, 2014). For many LGBQ youth, these conversations involve discussing safety, disclosure at school and in the workplace, how to manage bullying and discrimination, and the impact of nonaccepting relatives on self-esteem.

The absence of significant differences in suicidal ideation across conditions might be explained by the common

treatment factors found in both ABFT and FE-NST. Both treatments provided intensive suicide monitoring and regular check-ins with parents and youth. Therapists intervened clinically when suicidality was elevated in order to promote safety, often involving caregivers and wider systems. All therapists were accessible and responsive to families' needs over the course of the 16-week treatment. The common factors present in both therapies may have been enough to successfully manage fluctuations in suicidality over the course of the treatment. It is also possible that the study was underpowered to detect these effects using the interaction term. Recent recommendations suggest directly testing the equivalence of simple slopes may improve the power to detect effects without sacrificing confidence and increasing Type I error rates (Robinson et al., 2013); however, research utilizing these types of analyses within a multilevel framework is still developing.

## Future directions

There are many unanswered research questions associated with these findings. Future studies could determine potential moderators impacting symptom reduction rates for depressed, LGBQ youth. Youths' perceptions of the impact of their sexual orientation on their depression are another avenue worth considering. It may be that LGBQ youth who believe their orientation directly impacts their depression may be more likely to benefit from ABFT. This question could be answered by measuring the adolescent's perception of how much LGBQ-related stressors contribute to depression and then comparing treatment outcomes. In addition, clinical speculations about ABFT mechanisms supporting symptom reduction for LGBQ adolescents should be examined through process research. The presence and quality of parental responsiveness in the ABFT condition might be linked to early treatment success. Future studies could examine the content and process of these ABFT sessions to determine which elements promote early treatment response in LGBQ adolescent subsamples. Finally, the presence of LGBQ-specific content in family discussions about ruptures might also have informed symptom reduction rates. As such, using the modified version of ABFT for LGBQ adolescents (Diamond et al., 2012; Diamond & Shpigel, 2014) might have yielded more robust findings.

## Limitations

This study is not without limitations. First, the weekly data we analyzed were not collected by a blind outcome monitoring team. Instead, measures were administered

either by the therapist or by the clinical research assistant in-person, before each session, or by phone during the remainder of the week. Therapists had access to measure results before seeing clients each week and would use them to check in verbally regarding clinical risk. As such, expectancy biases might have had some effect on our findings. Second, although the current analyses utilized full-information maximum likelihood for missing data handling, this approach does assume data are missing at random (MAR). Because this assumption is not directly testable, it is always possible that an unmeasured variable was associated with missing scores, which could bias the results. Missing data for these clinical assessments was common and served as a major limitation in this current study. Third, the weekly clinical data used in this study does not extend past the week in which the final treatment session occurred; therefore, we cannot determine long-term trajectories of the treatments for LGBQ youth on these clinical outcomes. Fourth, less than half of the youth in our sample identified as LGBQ and the majority of these youth were in the ABFT condition. Given the relatively small subsamples involved, the results of this study should be treated as exploratory as we did not have enough statistical power for a more confident interpretation of these analyses. Conducting a full-powered clinical trial with only LGBQ youth would increase scientific rigor and provide more information about the factors contributing to response rates. Finally, the majority of the LGBQ youth in our sample described themselves as being attracted to both males and females. Therefore, our findings may only be applicable to youth who identify as bi or pansexual. Future clinical studies should strive to have a more balanced representation.

## CONCLUSION

This study is one of the few to focus on treatment efficacy for depressed and suicidal LGBQ youth. According to our exploratory results, ABFT might reduce depression at a faster rate than FE-NST for LGBQ youth. Further, this study provides some evidence supporting ABFT as both efficacious and feasible with this population. The difference in response rate between the ABFT and FE-NST conditions could be due, in part, to the interpersonal, directive nature of the ABFT model. Future research should (1) seek to replicate these analyses with a larger sample of LGBQ adolescents and (2) examine treatment mechanisms and moderators to better understand the factors contributing to a potential for swifter relief from depressive symptoms for LGBQ youth in ABFT.

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## CONFLICT OF INTEREST STATEMENT

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## DATA AVAILABILITY STATEMENT

Supporting data can only be made available to bona-fide researchers subject to a nondisclosure agreement. Details of the data and how to request access are available from [gd342@drexel.edu](mailto:gd342@drexel.edu) at Drexel University.

## ETHICS STATEMENT

The protocol for the clinical trial from which de-identified data for the present study was derived was approved by the institutional review boards at the Children's Hospital of Philadelphia, Drexel University, and the City of Philadelphia. The study was monitored quarterly by a data safety and monitoring board. Participants were enrolled from May 1, 2012 to December 31, 2015 and provided written informed consent or assent (<14 years of age). The trial was prospectively registered at the US National Institutes of [Healthclinicaltrials.gov](https://clinicaltrials.gov) registry (NCT01537419).

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