The current study examined 12-month outcomes for girls enrolled in an implementation trial of Multidimensional Treatment Foster Care (MTFC) in England. In addition to examining changes from pretreatment to posttreatment, we also compared results for girls enrolled in the England implementation trial to girls enrolled in a randomized controlled trial (RCT) of MTFC in the United States. The England MTFC sample included 58 girls in foster care between the ages of 12 and 16 years. The U.S. MTFC intervention sample included 81 girls between the ages of 13 and 17 years who were referred to out-of-home care due to chronic delinquency. Results indicated improvement in offending, violent behavior, risky sexual behavior, self-harm, and school activities for girls enrolled in the England implementation trial. The effect sizes of these results were similar to those obtained in the U.S. RCT, with the exception of substance use, which showed significant decreases for girls enrolled in the U.S. RCT but not for girls enrolled in the England implementation trial. These results, in combination with other cross-cultural findings, support the notion that MTFC might be relevant across U.S. and European cultures.
INTRODUCTION

There is a growing body of studies that examines the transportability of evidence-based intervention models for the prevention and treatment of delinquency among children/adolescents and their families across cultures with some mixed (Sundell et al., 2008), but largely encouraging, results (Hansson, Cederblad, & Höök, 2000; Ogden & Hagen, 2006). These studies address two important issues. First, do evidence-based interventions maintain relevance across countries and cultures? And second, how are key outcomes affected when the intervention is delivered in another country and culture? Randomized controlled trial (RCT) designs are clearly the most rigorous “gold standard” approach that can be used to address these two questions. One such trial of the Multidimensional Treatment Foster Care (MTFC; Chamberlain, 1998) model was conducted in Sweden. In the Swedish trial, youths referred from social services in need of out-of-home placement were randomized to either MTFC or to “treatment as usual.” MTFC is a community-based alternative to placement in group or residential care for youths with severe behavioral/emotional problems referred from juvenile justice or social services systems. In MTFC, youths are placed with foster parents who are intensively trained and supported and, along with their families, receive individualized, family, and skills training therapy. Consistent and statistically significant positive treatment effects were found in the Swedish trial on the majority of outcome variables examined, and the authors concluded that MTFC could be successfully implemented within the Swedish culture (Westermark, Hansson, & Olsson, 2011).

Although the use of the RCT design is clearly optimal, we argue that there is knowledge to be gained from the examination of results from less rigorous, quasi-experimental, pre-post design studies, especially when those studies focus on understudied populations and the intervention has demonstrated effectiveness in prior RCTs. In addition, comparisons of results from research-based trials and real-world implementations provide information on potential decrements of effects that have been documented to occur when moving from researcher-conducted studies to practice-based settings (Weisz, Weiss, & Donenberg, 1992). Such comparisons also have the potential to inform the relevance question: Does the intervention “translate” well to the different types and severities of problems and to the different system structures (e.g., child welfare/social service, juvenile justice/youth offending boards) that are present in real-world cross-cultural settings? In this article, we compare outcomes of MTFC programs for adolescent girls referred for out-of-home placement due to severe behavior problems in England to the results obtained in an RCT with two cohorts of girls in the United States.
Girls, relative to boys, are an understudied population. Over the past decade, there has been increasing recognition of the seriousness of the problem of antisocial behavior in adolescent females (Pepler, Madsen, Webster, & Levene, 2005; Prescott, 1998; Putallaz & Bierman, 2004), largely due to an increase in arrest rates (Puzzanchera, 2009). The poor outcomes associated with girls’ offending behavior are significant, and include behaviors such as ongoing engagement in criminal offending, drug use, adolescent childbirth, and mental health problems (Chamberlain, Leve, & DeGarmo, 2007; Kerr, Leve, & Chamberlain, 2009; Miller-Johnson, Lochman, Coie, Terry, & Hyman, 1998; Teplin, Abram, McClelland, Dulcan, & Merce, 2002; Underwood, Kupersmidt, & Coi, 1996). Therefore, it is of high public health significance to develop and evaluate intervention models for these young women and to understand if these models have relevance across cultures.

THE MTFC MODEL

MTFC has received national attention as a cost-effective alternative to residential care. The results from a series of independent cost-benefit analyses from the Washington State Institute for Public Policy (Aos, Phipps, Barnoski, & Lieb, 2001), and findings from RCTs, led MTFC to be selected as 1 of 10 evidence-based National Model Programs (The Blueprints Programs; Elliott, 1998) by the Office of Juvenile Justice and Delinquency Prevention and selected as 1 of 9 National Exemplary Safe, Disciplined, and Drug Free Schools model programs. The MTFC model was also highlighted in two U.S. Surgeon’s General reports (U.S. Department of Health and Human Services [USDHHS], 2000a, 2000b) and was selected by the Center for Substance Abuse Prevention and the Office of Juvenile Justice and Delinquency Prevention as an Exemplary I program for Strengthening America’s Families (Chamberlain, 1998). In addition, it was selected in 2009 by the Coalition for Evidence-Based Policy as meeting “top tier” evidence of effectiveness (www.toptierevidence.org).

MTFC involves placing youths individually in well-trained and supervised foster homes. Close consultation, training, and support of the foster parents are the cornerstones of MTFC. Program supervisors with small caseloads (10 families each) maintain daily contact with MTFC parents to collect data on youth adjustment and to provide ongoing consultation, support, and crisis intervention. The basic components of MTFC include:

1. daily (Monday through Friday) telephone contact with MTFC parents using the Parent Daily Report checklist (PDR; Chamberlain & Reid, 1987);
2. weekly foster parent group meetings led by the program supervisor that are focused on supervision, training in parenting practices, and support;
3. an individualized behavior management program implemented daily in the home by the foster parent;
4. individual therapy for the youth;
5. individual skills training/coaching for the youth;
6. family therapy (for biological/adoptive/relative family of the youth) focused on parent management strategies;
7. close monitoring of school attendance, performance, and homework completion;
8. case management to coordinate the MTFC, family, peer, and school settings;
9. 24-hour on-call staff availability to MTFC and biological parents; and
10. psychiatric consultation as needed.

The MTFC intervention embodies a strong focus on strength-building and positive reinforcement, and specific treatment services are tailored to the child's age and developmental level. The MTFC team consists of a program supervisor (who is the clinical lead), the treatment foster parents, family and individual therapists, a skills trainer, and a foster parent recruiter/trainer.

Study Aims

The primary aim of the current study was to examine behavior changes from pre-treatment to posttreatment (12 months post-baseline) for girls who participated in MTFC in England. As a corollary of this aim, we compared the pre-post outcomes in England to those from an RCT of MTFC in the United States. Based on previous results from RCTs of MTFC, we expected overall improvement in functioning for girls enrolled in MTFC in England, similar to improvements seen for girls enrolled in the United States RCT of MTFC. Based on previous findings that the magnitude of effects may be reduced in real-world implementations (Weisz et al., 1992), we anticipated that the effect sizes from the England implementation trial might be slightly lower than the effect sizes from the U.S. RCTs, even though we expected improvements in both groups of girls.

METHOD

Participants

U.S. SAMPLE PARTICIPANTS

The U.S. sample was selected from a larger sample of 166 girls who participated in one of two consecutively recruited cohorts in an RCT (N= 81 and 85 for Cohorts 1 and 2, respectively) conducted from 1997 to 2006 to contrast MTFC and group care (GC) conditions in Oregon. The girls had been mandated to community-based, out-of-home care because of problems with chronic delinquency. In this study, we attempted to enroll all referred girls who were 13–17 years of age, who had at least one criminal referral in the prior 12 months, who were not currently pregnant, and who were placed in
out-of-home care within 12 months following referral. The project coordinator randomly assigned (coin flip) enrolled girls to either MTFC \((N=81)\) or GC \((N=85)\). All youths and caregivers were aware that they were participants in a research study and were aware that they were receiving treatment services. The current analyses included the entire intent-to-treat treatment sample \((N=81)\). Girls in the treatment sample were 13–17 years of age at baseline \((M=15.31, SD=1.13)\); 72% were Caucasian, 1% were African-American, 9% were Hispanic, 1% were Native American, 16% reported mixed ethnic heritage, and 1% reported other or unknown ethnicity. In comparison, 93% of the girls 13–19 years of age living in the region of the study were Caucasian (U.S. Department of Commerce, 1992). At baseline, 62% of the girls randomly assigned to MTFC were living with single-parent families, and 46% of the girls randomly assigned to MTFC were living in families earning less than $10,000 annually. No adverse events occurred during the course of the study.

**ENGLAND SAMPLE PARTICIPANTS**

England sample participants were selected from a larger sample of 105 girls in foster care, the majority of whom had entered the care system due to abuse and/or neglect, who were enrolled in an implementation trial of MTFC. Of these 105 girls, 82 were at least 12 years of age, and our final analytic sample consisted of 58 girls who were between 12 and 16 years old at MTFC placement \((M=13.74, SD=1.21)\) and who had pretreatment and posttreatment data available on at least one outcome domain. Girls were enrolled between 2004 and 2010 from 1 of 18 sites that were funded by the government to set up MTFC and make placements. Of those 18 sites, 5 were considered rural and the remaining were considered urban. To be referred to MTFC, girls had to be in the age range of 10–16 (we selected those 12 and older at entry in order to maximize the comparability of the U.S. and England samples), in need of a new foster care placement, have complex difficulties including behavioral and emotional difficulties, and/or histories of offending. Fifty-one (88%) girls were white British, two were black Caribbean (3%), and five (9%) indicated more than one race or another race.

At intake, 30 girls were accommodated under section 20 of the Children Act 1989 (the 1989 Act) by the local authority, under a voluntary arrangement between the parents and the local authority. The parents retain parental responsibility for the child and continue to make decisions about the child's welfare. Twenty girls were the subject of a full care order under section 31 of the 1989 Act which grants parental responsibility to the local authority. It is shared with the parents but the local authority may determine how it should be exercised. Three girls were the subject of an interim care order made during care proceedings, which typically lasts for eight weeks in the first instance, pending the outcome of a full hearing of the evidence as to whether the child is suffering or is likely to suffer significant harm. One girl had a supervision order (section 31 of the 1989 Act) and was placed under
the supervision of the local authority or a probation officer. For this order, the child remains in the family home and the local authority has no parental responsibility for the child; however, they may supervise the parents’ care of their child. One girl was placed for adoption, two girls had other placement orders to enable them to be placed for adoption, and for one girl this information was missing.

Intervention

U.S. MTFC girls were individually placed in 1 of 22 highly trained and supervised homes with state-certified foster parents. Across the years that the trials were conducted, each MTFC home served 1 to 19 study participants \( (M = 3.68, SD = 4.53) \). In Cohort 2, the MTFC condition also included an additional intervention component that targeted drug abuse and HIV risk behaviors. The girls were provided with information on dating and sexual behavior norms and on HIV risk behaviors and were taught strategies for being sexually responsible, including decision making and refusal skills. Role-play exercises were conducted with the Virtual Date program (Northwest Media, 2002), which depicts key decision points in a practice date. Girls were not randomly assigned to Cohort 1 or Cohort 2; that is, participation in these consecutively run trials was based on when girls were court mandated to out-of-home care.

The MTFC girls in England age 12 and older \( (N = 82) \) were individually placed in 1 of 74 highly trained and supervised foster homes. Across the years the trials were conducted, each MTFC home served 1 to 3 participants \( (M = 1.35, SD = 0.65) \). MTFC in England was initiated in partnership with the government beginning in 2002. In collaboration with the developers of the MTFC model, a National Implementation Team at the Maudsley Hospital was set up in 2003 to help build program capacity and sustainability, to act as a bridge between researchers and practitioners during the implementation process, and to provide support and training to the sites in England. First, a small number of sites established MTFC teams to implement the intervention. Lessons learned from implementation in the first sites were used to assist the implementation of MTFC in other local authority sites in successive years. The National Implementation Team collaborated with the developers of MTFC (the second author and Oregon colleagues) to conduct training and to make minor adaptations to the model to fit culturally (described in Chamberlain et al., 2012). In total, 18 sites set up MTFC programs for adolescents and made first placements between 2004 and 2007. The National Implementation Team worked closely with the MTFC program developers, organized training for staff and foster parents, provided weekly consultation and supervision, attended steering groups with senior managers, organized update events, and received regular audit data and feedback from each site on their development, implementation progress, and concerns.
Measures

Data collection strategies were markedly different for the U.S. RCT and the England implementation trial due to their differing goals and priorities. Whereas the U.S. RCT was designed and had the resources to measure outcomes in depth, data collection for the implementation trial in England was less time-intensive and assessed most outcomes with a single question from an audit form versus extensive questionnaire measures. To achieve comparability in outcome measurement for the two trials, we first selected items from the England MTFC audit form that corresponded to domains targeted by MTFC and/or domains that had evidenced improvement in prior analyses of the U.S. RCT. In addition, we only included outcome measures that were measured at both baseline and 12 months post-baseline. Using this strategy, we selected six outcome domains:

1. offending,
2. violence,
3. substance use,
4. risky sexual behavior,
5. self-harm, and
6. school activities.

We then selected questions from the U.S. RCT assessment batteries that most closely mirrored the questions asked in the England MTFC audit (see Table 1). The six domains selected were assessed at baseline and at 12 months post-baseline or, for the England implementation sample, at discharge if discharge from MTFC was earlier than 12 months post-baseline. We were thus able to examine change in these selected domains from pretreatment to posttreatment.

Measures in the U.S. Sample

Offending

Offending was measured pre-baseline and 12 months post-baseline. We collected the number of criminal charges at both time points using state police records and circuit court data. Court records list the individual charges for each girl and the disposition of each charge and are reliable indicators of externalizing behavior (Capaldi & Stoolmiller, 1999).

Violence

Physical violence was measured at baseline and 12 months post-baseline using 4 items tapping physical violence toward others from the 38-item Elliot Social Behavior Questionnaire (Elliot, Huizinga, & Ageton, 1985) and 2 items from the Youth Self Report (YSR) of the Child Behavior Checklist (CBCL; Achenbach, 1991). The Elliot questionnaire includes items assessing one's
<table>
<thead>
<tr>
<th>Outcomes</th>
<th>#</th>
<th>Questions</th>
<th>England</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offending</td>
<td>1</td>
<td>Offending history</td>
<td>Caregiver or social worker</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>and/or case file</td>
<td></td>
</tr>
<tr>
<td>Violence</td>
<td>1</td>
<td>Aggression toward others</td>
<td>Caregiver or social worker</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>and/or case file</td>
<td></td>
</tr>
<tr>
<td>Substance use</td>
<td>3</td>
<td>Tobacco, alcohol, and drug use</td>
<td>Caregiver or social worker</td>
<td>4</td>
</tr>
<tr>
<td>Risky sexual behavior</td>
<td>1</td>
<td>Sexual behavior problems</td>
<td>Caregiver or social worker</td>
<td>2</td>
</tr>
<tr>
<td>Self-harm</td>
<td>1</td>
<td>Self-harm</td>
<td>Caregiver or social worker</td>
<td>1</td>
</tr>
<tr>
<td>School activities</td>
<td>1</td>
<td>Attends school leisure activities</td>
<td>Caregiver or social worker</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>and/or case file</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. # = number of questions included in the domain for each sample.
engagement in various delinquent behaviors (e.g., purposefully damaged or destroyed property, carried a hidden weapon, stole something). Ratings are given as a count of the number of times the girl engaged in the behavior. Due to a few extreme outlying behavior counts, we dichotomized all items into 0 = did not engage in the behavior and 1 = did engage in the behavior. The four items included from the Elliot questionnaire were:

1. “attacked someone intending to hurt,”
2. “hit a parent,”
3. “hit a student,” and
4. “hit anyone else.”

Two items from the Youth Self Report (YSR) form of the Child Behavior Checklist (CBCL; Achenbach, 1991) were included to assess physical violence. The included items were (1) “gets in many fights” and (2) “physically attacks people.” Internal consistency for the violence construct was adequate at both assessment points (baseline $\alpha = .63$; 12 months post-baseline $\alpha = .69$).

**SUBSTANCE USE**

Substance use was assessed with four questions which asked the target girls to indicate, on a 5-point scale, how frequently they used tobacco, alcohol, marijuana, and other drugs. The scale was from 1 = never to 5 = one or more times per day. Responses for the four substances were averaged (baseline $\alpha = .78$; 12 months post-baseline $\alpha = .82$).

**RISKY SEXUAL BEHAVIOR**

Risky sexual behavior was assessed by caregiver report at baseline and 12 months post-baseline using two questions from the Overt Covert Aggression Questionnaire (OCAQ; Capaldi & Patterson, 1989): (1) has sex with strangers and (2) has unprotected sex. Items were rated on a 3-point scale: 0 = not true, 1 = sometimes, and 2 = often. The two items were significantly correlated at both time points (baseline $r = .66, p < .001$; 12 months post-baseline $r = .38, p < .001$).

**SELF-HARM**

Self-harm was assessed at baseline and 12 months post-baseline using one question from the Youth Self Report of the Child Behavior Checklist (CBCL; Achenbach, 1991): “deliberately harms self or tries suicide.” The item was rated on a 3-point scale: 0 = never, 1 = sometimes, and 2 = often.

**SCHOOL ACTIVITIES**

School activities were assessed at baseline and 12 months post-baseline with two caregiver and girl report questions: (1) number of days in the past week
that the girl spent at least 30 minutes on homework and (2) how often the girl attends school (1 = not attending, 2 = attending very infrequently, 3 = attending infrequently, 4 = attending more than that, 5 = attending regularly). Composite scores were formed for both school activity variables by aggregating caregiver and girl reports. The caregiver-girl correlations were .50 for attendance and .27 for homework completion. These two questions were only included for one cohort of girls in the MTFC condition (N = 37), and thus only that subsample of participants was used for the school activity analyses.

Measures in the England Sample

All measures in the England study were assessed from caregivers’, social workers’, or residential key workers’ reports on various aspects of the girls’ behaviors. In most cases, information was also obtained from the girls’ social care files.

**OFFENDING**

Offending was assessed at baseline and 12 months post-baseline. Responses were given on a 4-point scale: 0 = none, 1 = caution/warning, 2 = conviction, 3 = 3 or more convictions.

**VIOLENCE**

Violence was assessed at baseline and 12 months post-baseline by reports of “aggression toward others.” Ratings were given on a 3-point scale: 0 = none; 1 = yes, low impact; 2 = yes, significant impact.

**SUBSTANCE USE**

Substance use was assessed at baseline and 12 months post-baseline by reports of the girls’ use of three substances: tobacco, alcohol, and other drugs. Responses indicated the degree of use on a 3-point scale: 0 = no use; 1 = yes, low impact; 2 = yes, significant impact. The three indicators of substance use were aggregated (baseline $\alpha = .76$; 12 month post-baseline $\alpha = .77$).

**RISKY SEXUAL BEHAVIOR**

Risky sexual behavior was assessed at baseline and 12 months post-baseline by reports of the prevalence and impact of the girls’ sexual behavior problems. Ratings were made on a 3-point scale: 0 = no sexual behavior problems; 1 = yes, low impact; 2 = yes, significant impact.

**SELF-HARM**

Self-harm was assessed at baseline and 12 months post-baseline by reports of the girls’ self-harming behaviors. Ratings were given on a 3-point scale: 0 = none; 1 = yes, low impact; 2 = yes, significant impact.
SCHOOL ACTIVITIES

School activities were assessed at baseline and 12 months post-baseline by reports of the frequency of attending school leisure activities after school hours. Responses were given on a 3-point scale: 0 = never, 1 = occasionally, 2 = regularly.

RESULTS

Because the England implementation trial did not include a control group, we could not compare the improvement of England girls in MTFC to comparable girls who did not receive MTFC. Thus, our analytic strategy was to separately examine pre-post differences in the six domains for girls in the U.S. RCT and for girls in the England implementation trial. Although these analyses do not provide the most stringent test of the effectiveness of MTFC in England, it does allow us to examine and compare overall changes in our six domains for the two programs. We conducted a series of six paired-samples t-tests comparing the following:

1. offending,
2. violence,
3. substance use,
4. risky sexual behavior,
5. self-harm, and
6. school activities

from baseline to 12 months post-baseline separately for the U.S. treatment sample and the England sample (see Table 2).

Girls who participated in MTFC in the United States demonstrated improvements in all six domains of functioning from baseline to 12 months post-baseline (all $p < .05$). Effect sizes ranged from small to large, with the greatest improvement evidenced for offending and substance use.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>England MTFC</th>
<th>Effect Size</th>
<th>United States MTFC</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offending</td>
<td>$t(54) = 5.65^{***}$</td>
<td>$d = .76$</td>
<td>$t(80) = 8.07^{***}$</td>
<td>$d = .90$</td>
</tr>
<tr>
<td>Violence</td>
<td>$t(64) = 2.08^*$</td>
<td>$d = .26$</td>
<td>$t(74) = 2.09^*$</td>
<td>$d = .24$</td>
</tr>
<tr>
<td>Substance use</td>
<td>$t(63) = 0.43$ ns</td>
<td>$d = .05$</td>
<td>$t(74) = 6.54^{***}$</td>
<td>$d = .75$</td>
</tr>
<tr>
<td>Risky sexual behavior</td>
<td>$t(62) = 2.25^*$</td>
<td>$d = .28$</td>
<td>$t(64) = 2.26^*$</td>
<td>$d = .28$</td>
</tr>
<tr>
<td>Self-harm</td>
<td>$t(65) = 3.41^{***}$</td>
<td>$d = .42$</td>
<td>$t(65) = 5.26^{***}$</td>
<td>$d = .65$</td>
</tr>
<tr>
<td>School activities</td>
<td>$t(58) = -2.81^{**}$</td>
<td>$d = .37$</td>
<td>$t(31) = -2.72^{**}$</td>
<td>$d = .48$</td>
</tr>
</tbody>
</table>

Note. $d =$ Cohen’s $d$ effect size (.20 = small effect, .50 = medium effect, .80 = large effect).

*p < .05. **p < .01. ***p < .001.
participated in MTFC in England demonstrated improvement in five of the six domains of functioning from baseline to 12 months post-baseline; there were no significant decreases in substance use for this sample. Similar to the girls who participated in MTFC in the United States, effect sizes ranged from small to medium-large, with the greatest improvement seen in offending.

**DISCUSSION**

The current study examined pre-post outcomes for girls who were enrolled in MTFC in England and compared those outcomes to those obtained from a randomized controlled trial of MTFC in the United States. Results on the effectiveness of the MTFC model for girls, as it is being implemented in England, showed comparability in terms of effect size to the results obtained in the original U.S. RCT in five of the six domains examined; comparable effects were not found in England in the area of substance use. This level of comparability of effect sizes in the areas of offending, violence, risky sexual behavior, self-harm, and school activities is impressive for at least three reasons. First, the MTFC model is complex to implement. It has multiple components and involves the coordinated efforts of staff members who comprise the MTFC clinical team (including treatment foster parents, a program supervisor, family and individual therapists, a skills coach, and a foster parent recruiter/trainer). As such, the model requires that several people be trained and supervised and that their efforts are monitored to ensure model fidelity. The replication across trials suggests that, despite the complexity of the model, sufficient fidelity was achieved. Second, there are few reports that focus on outcomes for girls with severe problems in need of out-of-home care in the United States or in England. This study adds to the literature on this understudied but rapidly growing population of youths and suggests that similar developmental mechanisms operate for girls in both countries. Third, although both samples were in foster care, the sampling criteria and sample composition of the two trials differed. In the U.S. trial, all girls were involved in the juvenile justice system and parental rights had been suspended; in the England trial, girls had behavior problems, including offending histories, but the majority were in the care system due to childhood abuse and/or neglect, and parental responsibility is retained by the parents. Despite these sample differences, similar results were found, suggesting the appropriateness of MTFC for a wide range of youths in foster care.

The one domain that evidenced differences between the United States and the England trials was substance use. The U.S. RCT demonstrated decreases in drug use from pretreatment to 12 months posttreatment, while the England implementation trial did not. Girls enrolled in the England implementation trial evidenced less drug use at baseline than did girls in the U.S. RCT. At baseline, more than 30% of girls in the England trial did not have reports of any substance use. In contrast, only a little more than 7% of girls in the U.S. RCT reported no substance use at baseline. Thus, the girls
in the U.S. trial evidenced more use at baseline and had the opportunity to demonstrate greater decreases in use over the course of the trial. For girls enrolled in the England trial, MTFC might have prevented the initiation of substance use for those girls who were not using any substances at baseline. At 12 months post-baseline, about 25% of girls in the U.S. trial reported no substance use, compared to about 32% of girls in the England trial. Therefore, it appears that participation in MTFC was associated with decreases in substance use for girls in the U.S. trial and with prevention of substance use initiation for girls in the England trial, although more complex analyses would be required to definitively address this hypothesis.

One additional hypothesis should be considered for the lack of comparable substance abuse findings. In the U.S. sample, many girls received an enhanced protocol directed toward reduction of substance use and other health-risking sexual behaviors. The girls in England only received the standard MTFC protocol. Therefore, it might be the case that more severe behavioral problems such as substance abuse require additional monitoring and attention in order for reductions in behavior to be seen. That is, the standard MTFC protocol alone may not be sufficient to address these behaviors for youths who are already displaying them at the time of admission. Future research should consider this possibility.

There are several limitations to the analyses presented here. First, the same measures were not available in the United States and England. This was expected because of the differences in the original intent of the implementations in the two countries. In the United States, the implementation took place in the context of two National Institutes of Health–funded randomized clinical trials. The primary intent was to conduct controlled experiments to examine the efficacy of the model relative to group care (treatment as usual in the United States). In England, the focus was on conducting a national implementation for the primary purpose of service provision to girls and their families. Thus, the intensity and depth of outcome measurement in the U.S. implementation was much greater than that in the England implementation. To achieve comparability in measurement, it was therefore necessary to select individual item(s) that most closely matched the questions included in the England audit forms. A second major limitation is that a quasi-experimental pre-post design was used. Therefore, the results can only be thought of as suggestive of evidence on the efficacy of MTFC across cultures rather than as being conclusive. Third, because the referral systems are obviously different in the two settings, it is not entirely clear how the girls enrolled in the respective programs are comparable in terms of problem severity or other unmeasured characteristics. This system difference also possibly affects system-level responses to the girls’ misbehavior (e.g., the potentially differing perceptions of what constitutes offending and/or violence). Despite these substantial limitations, the findings presented here are encouraging. In concert with the findings from the Swedish RCT, the results presented here bolster the notion that the MTFC intervention appears to be
relevant across European and U.S. cultures. This report provides preliminary data that will hopefully stimulate future research on the cross-cultural relevance of MTFC, the comparability of outcomes across cultures, and on the mechanisms of change and how they are similar and/or different in various cultural contexts.

REFERENCES


