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Young Adult Outcomes Associated with Teen Pregnancy Among High-Risk Girls in an RCT of Multidimensional Treatment Foster Care

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Abstract

Teen pregnancy is associated with a host of deleterious outcomes for girls such as drug use and poor parenting. Thus, reducing teen pregnancy rates could improve long-term developmental outcomes for girls, improving adjustment during young adulthood. Based on the positive effects of Multidimensional Treatment Foster Care (MTFC) relative to group care (GC) in a study of adolescent girls—significantly fewer pregnancies reported in the 2-year follow-up for MTFC girls—the present study followed this sample into young adulthood (approximately 7 years postbaseline) to examine the effects of adolescent pregnancy on young adult substance use and pregnancy-related outcomes. All participants were randomly assigned to MTFC ($n = 81$) or GC ($n = 85$) as adolescents as part of two RCTs. Results from logistic regression analyses indicated that becoming pregnant during the 2-year follow-up was significantly related to illicit drug use, miscarriage from a new pregnancy, and child welfare involvement at 7 years postbaseline. In addition, baseline marijuana use predicted marijuana use at 7 years postbaseline.

Keywords

teen pregnancy; young adulthood; juvenile justice; drug use; RCT

Delinquency among adolescent girls has been increasingly recognized by researchers, practitioners, and policymakers as a significant public health problem (Miller, Leve, & Kerig, in press; Moretti, Odgers, & Jackson, 2004; Pepler, Madsen, Webster, & Levene, 2004), largely due to an alarming increase in arrest rates among girls in the last decade. Girls now comprise 30% of all juvenile arrests (Puzzanchera, 2009), nearly a 50% increase from rates during the early 1990s (Snyder, 2008). The risks associated with girls' delinquent behavior are significant, and include maladaptive outcomes such as substance use and teen pregnancy. However, little is known about how these phenomena develop over time. The focus of the current study is on examining the long-term outcomes of teen pregnancy in a sample of delinquent girls.

It has been widely documented that delinquent girls are at increased risk for co-occurring problems with substance use (Snyder & Sickmond, 2006; Teplin et al., 2005). Substance use

problems are particularly prevalent among juvenile justice populations, with 45% of female juvenile detainees having one or more substance use disorders (McClelland, Elkington, Teplin, & Abram, 2004) and drug use rates being highest among youth with the most severe arrest charges (Childs, Dembo, Belenko, Wareham, & Schmeidler, 2011; Dembo et al., 2009).

In addition to co-occurring substance use problems, delinquent girls are at considerably higher risk for pregnancy and childbearing in adolescence as compared to their less delinquent counterparts (Kerr, Leve, & Chamberlain, 2009; Miller-Johnson, Lochman, Coie, Terry, & Hyman, 1998; Underwood, Kupersmidt, & Coie, 1996). Early parenthood is associated with negative psychosocial and health outcomes for young mothers and their offspring, due in part to characteristics of young mothers such as histories of conduct disorder and low educational attainment (Jaffee, 2002). Rates of child abuse are twice as high among teen parents (Maynard, 1996) and include increased rates of physical neglect and abuse (Elfenbein & Felice, 2003). In addition, teen pregnancy and teen motherhood tend to have lasting effects on outcomes for subsequent, nonteen births; individuals born to a teen mother or to a prior teen mother showed similar deficits in educational attainment relative to individuals born to mothers who had their first child during adulthood (Lipman, Georgiades, & Boyle, 2011). Additionally, teen childbearing is quite costly to society, costing U.S. taxpayers \$9.1 billion in 2004 (Hoffman, 2006).

The co-occurring constellation of severe delinquency, substance use, and teen pregnancy is also likely to have deleterious effects on a young female's reproductive health, including fertility and miscarriage rates. Substance use and delinquency have been associated with failure to use birth control, high rates of risky sexual behavior (e.g., intercourse without protection and nonmonogamous relationships), and the contraction of sexually transmitted infections (Barthlow, Horan, DiClemente, & Lanier, 1995; Dembo et al., 2009; Leve & Chamberlain, 2005). In a study of juvenile detainees, Teplin, Mericle, McClelland, and Abram (2003) found that 91% were sexually active, 35% reported having unprotected sexual intercourse, and 90% reported engaging in at least three risky sexual behaviors. In addition, among detainees with comorbid substance use disorders, Teplin et al. (2005) found that 62% had multiple partners in the previous 3 months and 59% had unprotected intercourse in the previous month. These are risk factors not only for pregnancy but for reproductive health problems. Thus, it is of high public health significance to better understand the long-term outcomes for girls with co-occurring delinquency and substance use problems and, in particular, to better understand the long-term outcomes associated with teen pregnancy in this population. We sought to address this gap by examining young adult substance use and pregnancy outcomes in a sample of females who participated (during adolescence) in a randomized controlled trial that aimed to prevent delinquency and associated outcomes.

In an earlier report using this sample, we examined whether a behavioral intervention impacted the pregnancy rates of adolescent girls referred from juvenile justice to out-of-home care placement settings (Kerr et al., 2009). In that study, pregnancy outcomes were compared at a 2-year follow-up between girls randomly assigned to Multidimensional Treatment Foster Care (MTFC) or group care (GC). Previous reports from that study indicated positive effects on delinquency and associated outcomes at 1- and 2-year follow-ups (Chamberlain, Leve, & DeGarmo, 2007; Leve, Chamberlain, & Reid, 2005). Because delinquency shares common underpinnings with risky sexual behavior and other problem behaviors (e.g., impulsivity, poor parental monitoring, and deviant peer relationships), we hypothesized that the MTFC intervention would also influence outcomes in domains related to delinquency (e.g., pregnancy). The results supported this hypothesis: MTFC girls showed nearly half the odds of becoming pregnant during the postbaseline period compared to the GC girls. This effect remained significant after controlling for the independent effects of

other known pregnancy risk factors (e.g., baseline criminal referrals, pregnancy history, and current sexual activity; Kerr et al., 2009).

Despite these promising results, Kerr et al. (2009) only examined outcomes at 2 years postbaseline (ages 15–19). It is likely that the consequences of teen pregnancy extend well into adulthood. Therefore, we sought to extend this work by examining whether becoming pregnant during the original 2-year follow-up would be associated with a cascade of negative health-related outcomes 5 years later (M age = 22 years). Specifically, we hypothesized that a pregnancy during the 2-year follow-up would be linked with the following young adult outcomes: increased rates of marijuana use, increased rates of other illicit drug use, increased miscarriage rates for new pregnancies occurring after the original follow-up period, and significant maltreatment of children, as evidenced by involvement in the child welfare system. In addition, we hypothesized continuity in substance use such that baseline substance use would be associated with substance use at 7 years postbaseline. Analyses were designed to test the above hypotheses rather than to provide a sensitive and comprehensive test of the MTFC intervention on young adult outcomes; however, MTFC group assignment was included in the study models to examine potential long-term influences on the specified young adult outcomes in an exploratory manner.

Method

Participants

The participants were 166 girls who were recruited into one of two consecutively run RCTs between 1997 and 2006 to contrast the MTFC and GC conditions. The girls had been mandated to community-based out-of-home care due to severe and chronic delinquency. The study attempted to enroll all referred girls who were 13–17 years old, had at least one criminal referral in the prior year, were not currently pregnant, and were placed in out-of-home care within 1 year following referral. Two-hundred and fifty-one girls were approached for inclusion into the study, 60 of whom did not meet the study's enrollment criteria. Of the remaining 191 girls, 21 girls or their caregiver or caseworker refused to participate (11%), and 4 could not be located at the start of the baseline assessment (2%), resulting in a participation rate of 87% of eligible girls. The girls were randomly assigned to MTFC ($n = 81$) or GC ($n = 85$). The analyses followed the intent-to-treat principle by coding intervention group based on original random assignment rather than on whether the intervention was received as intended; however, the participants were only included in the study models if they had complete predictor and outcome data. Retention rates of the 164 participants still known to be living at the follow-up assessments were high (85–96%; see Table 1 for sample sizes at each assessment).

The girls were approximately 15 years old at baseline ($M = 15.31$, $SD = 1.17$) and 22 years old at the young adult follow-up ($M = 22.63$, $SD = 3.08$). Because the young adult follow-up combined data from two RCTs occurring across 10 years, there was variability in the length of time between baseline and the young adulthood follow-up, with a mean of 7.34 years between the baseline assessment and the final assessment used in the current study ($SD = 2.86$, range = 3.18–13.34). The ethnicity breakdown of the sample was as follows: Caucasian (74%), African-American (2%), Hispanic (7%), Native American (4%), Asian (1%), and mixed ethnic heritage (13%). In comparison, 93% of the girls aged 13–19 years living in the region of the study were Caucasian (U.S. Department of Commerce, 1992). At baseline, 61% of the girls lived with single-parent families, and 32% of the girls lived in families earning less than \$10,000. There were no group differences on the rates or types of prebaseline offenses or on other demographic characteristics (Leve et al., 2005). No intervention-related adverse events occurred during the study.

Experimental Intervention

The MTFC girls were individually placed in one of 22 highly trained and supervised homes with state-certified foster parents; across the years that the two RCTs were conducted, each MTFC home served 1–19 study participants ($M = 3.68$, $SD = 4.53$). Experienced program supervisors with small caseloads (10 MTFC families) supervised all clinical staff, coordinated all aspects of each youth's placement, and maintained daily contact with MTFC parents to provide ongoing consultation, support, and crisis intervention services and to monitor treatment fidelity. The intervention was individualized and included all basic MTFC components: daily telephone contact with the foster parents to monitor case progress and adherence to the MTFC model; weekly group supervision and support meetings for foster parents; an individualized, in-home, daily point-and-level program for each girl; individual therapy for each girl; family therapy for the aftercare placement family focused on parent management strategies; close monitoring of school attendance, performance, and homework completion; case management to coordinate the interventions in the foster family, peer, and school settings; 24-hr, on-call staff support for the foster and biological parents; and psychiatric consultation as needed. The girls in the second RCT received additional intervention components targeting HIV-risk behaviors (i.e., information on dating, sexual behavior norms, and HIV-risk behaviors) and substance use behaviors (i.e., motivational interviewing and random urinalyses). Differences in pregnancy rates by trial were not supported in the Kerr et al. (2009) study and similar intervention outcomes were found for delinquency in both RCTs (Leve, Chamberlain, Smith, & Harold, in press). (The MTFC intervention is more fully described elsewhere [Chamberlain, 2003; Chamberlain et al., 2007].)

Control Condition

The GC girls were placed in 1 of 35 community-based group care programs located through Oregon State. Each site served 1–12 study participants ($M = 2.18$, $SD = 2.95$). The GC programs represented typical services for girls being referred to out-of-home care by the juvenile justice system. The programs had 2–83 youth in residence ($M = 13$) and 1–85 staff members ($Mdn = 9$); the GC facilities served girls only (68%) or both genders (32%) but housed girls and boys in separate units. The GC sites required on-grounds schooling (41%), sent only some girls to off-grounds school (38%), or sent all girls to off-grounds school (21%). The program philosophies were primarily behavioral (67%) or multiperspective (33%); 80% of the programs reported delivering weekly therapeutic services.

Measures

In the original RCTs, the girls and their caregivers were assessed at baseline and at 6, 12, 18, and 24 months postbaseline via single, in-person interviews that lasted approximately 2.5 hr. In the present study, the young women were assessed at approximately 7 years postbaseline and 6 months later (additional follow-up assessments are ongoing). The young adult follow-up study assessments were primarily completed via telephone interviews, with approximately 20% of the assessments occurring in-person.

Predictor Variables

Baseline substance use: To control for initial levels of substance use, baseline data from the girls' in-person interview were examined. The girls were asked whether they had used marijuana and a variety of other illicit drugs (e.g., hallucinogens, inhalants, stimulants, opiates, depressants, and club drugs) in the prior 6- to 12-month period. Responses were coded as 0 (*no*) or 1 (*yes*) to represent use of marijuana or use of any other illicit drug (aggregated across all drug classes) at baseline. The percentage of girls who indicated

baseline marijuana use and baseline other illicit drug use is shown in Table 1 by group along with the descriptives for all other study variables.

Adolescent pregnancies between baseline and 2 years postbaseline: Consistent with the assessment methods used by Kerr et al. (2009), new pregnancies were examined using information from all available assessment time points for girls and caregivers between baseline and 2 years postbaseline. Five girls had missed one or more assessments during the original study but had completed later assessments; for those girls, self-reports of pregnancies between baseline and 2 years postbaseline were garnered from a later assessment to maximize the sample size for this variable.¹ The respondents were asked at multiple interviews whether the girl had become pregnant since the last assessment. The presence or absence of a postbaseline pregnancy was coded as 0 (*no*) or 1 (*yes*) to yield two variables: (a) whether a girl had a new pregnancy between baseline and 1 year postbaseline and (b) whether a girl had a new pregnancy between 1 and 2 years postbaseline. A summary score was computed from these data: 0 (*no pregnancies*), 1 (*a new pregnancy in one of the time periods*), or 2 (*a new pregnancy in both time periods*). Sixty percent of the sample had no new pregnancies in either period, 32% had a new pregnancy during one period, and 8% had a new pregnancy during both periods.

Young Adult Outcomes

Substance use: At the two young adult follow-up assessments, the young women were asked whether they had used marijuana and/or a series of other illicit drugs during the past 6 months using the methods described above. A score of 1 (*yes*) was used in the analyses if the young woman reported using drugs at either time point. As with the baseline substance use scores, separate indicators were created for marijuana use and for any other illicit drug use.

Miscarriage of a new pregnancy: At the young adult assessments, the young women were asked whether they had any new pregnancies since their last interview; if so, they were asked the age that they were pregnant and the outcome of each new pregnancy (e.g., abortion, miscarriage, stillborn, and live birth). Any reported miscarriage of a new pregnancy occurring after the original 2-year follow-up was coded as 1 (*yes*).²

Child welfare involvement: At both assessments, the young women were asked whether they had had any contact with child welfare authorities due to their parenting in the prior 6 months. Their responses were coded as 1 (*yes*) or 0 (*no*) and were aggregated to include child welfare involvement at either time point.

Control variables: Age at the most recent young adult follow-up assessment and intervention group were included as control variables. We considered including length of time between baseline and the young adult follow-up assessment given the variability in this measure; however, this variable correlated .93 with age and was therefore not considered further in the analyses.

Analyses

Logistic regression analyses were conducted to examine whether pregnancies across the 2-year follow-up predicted each of the four young adult outcomes (i.e., marijuana use, other

¹This strategy increased the number of pregnancies in the 2-year follow-up period very slightly from what was previously published in Kerr et al. (2009). We elected to include the newly added cases in the present study to improve the completeness of the data.

²Only two girls indicated a stillbirth. One of those girls also indicated a miscarriage and was therefore already included in this indicator. We included the remaining stillbirth in our miscarriage indicator (the results were similar whether or not this case was included).

illicit drug use, miscarriage of a new pregnancy, and child welfare involvement), whereby each dichotomous outcome was examined individually. Age and intervention group were included as covariates in all analyses, and baseline substance use was included as a predictor in the substance use models.

Results

Descriptive statistics for the study variables are reported in Table 1. In Table 2, we present the results of the logistic regression analyses for the four young adult outcomes. For marijuana use, baseline marijuana use was the only significant predictor, Wald = 4.24, $p = .039$, odds ratio (OR) = 2.76, 95% confidence interval (CI) = 1.05–7.23, suggesting that baseline marijuana use nearly tripled the odds of marijuana use approximately 7 years later. For the other young adult outcomes, pregnancy within the 2-year follow-up was a significant predictor; in each case, it was associated with an increased risk for the occurrence of the outcome. Specifically, 2-year pregnancies were associated with the following outcomes: other illicit drug use, Wald = 4.62, $p = .032$, OR = 1.84, 95% CI = 1.06–3.36; miscarriages, Wald = 10.34, $p = .001$, OR = 3.86, 95% CI = 1.70–8.80; and child welfare involvement, Wald = 3.97, $p = .046$, OR = 2.76, 95% CI = 1.01–3.24. In addition, age was positively associated with the odds of having a new miscarriage, Wald = 9.50, $p = .002$, OR = 1.23, 95% CI = 1.08–1.40. As an exploratory evaluation of whether group assignment might have mitigated the deleterious effects of teen pregnancy on young adult outcomes, we reran models that included the interaction between these two variables; the interaction effect was not significant in any of these models.

Discussion

In the current study, we examined whether teen pregnancy within the first 2 years after placement in an out-of-home care setting (either GC or MTFC) was related to health-related outcomes during young adulthood: marijuana and other illicit drug use, a new pregnancy that resulted in a miscarriage, and involvement in the child welfare system regarding their parenting. As adolescents, the women in our sample had engaged in serious and chronic delinquency before entering the study (M criminal referrals at baseline = 12) and had high levels of substance use, increasing the likelihood of a cascade of problem behaviors in future years.

The results of the logistic regression analyses partially supported the study hypotheses. Specifically, pregnancies during the 2-year follow-up increased the likelihood that girls would engage in illicit drug use (but not marijuana use), would have one or more pregnancies resulting in a miscarriage, and would come to the attention of child welfare authorities regarding their parenting. The effects of pregnancies during the 2-year follow-up were substantial, nearly doubling the odds of illicit drug use (even when baseline illicit drug use was considered), nearly doubling the odds of child welfare involvement in young adulthood, and increasing the odds of a new pregnancy followed by a miscarriage by more than 3.8 times. These findings suggest the powerful effect of teen pregnancy on health-related outcomes during young adulthood (for mother and child[ren]). Although prior researchers have also shown associations between teen pregnancy and poor behavioral and health-related outcomes later in development (Jaffee, 2002; Hillis et al., 2004; Lipman et al., 2011), most work in this area has utilized normative or population-based samples rather than focusing on high-risk and vulnerable youth. Because adolescent girls with chronic delinquency and substance use problems are likely to be among those at highest risk for ongoing problems, our results fill an important gap in the literature by identifying teen pregnancy as a key pivotal event associated with deleterious outcomes for this population in

young adulthood. Indeed, our findings suggest teen pregnancy as a specific target for preventive intervention that could improve the life trajectories of this high-need population.

Despite a main effect of the MTFC intervention on the likelihood of pregnancy within the 2-year follow-up (Kerr et al., 2009), intervention condition was not directly predictive of any of the young adult outcomes examined in the present study. This suggests that, although the MTFC intervention was effective in preventing new pregnancies at 2 years postbaseline, once a girl enters an out-of-home placement and has a subsequent teen pregnancy, her developmental course is altered in deleterious ways: teen pregnancy events become a significant factor associated with health-related problems into young adulthood. Our examination of the young adulthood outcomes by intervention condition indicated that, even though only about half as many MTFC girls became pregnant by 2 years postbaseline, the girls in both conditions who became pregnant during this period fared much more poorly in young adulthood. One possibility for the nonsignificant intervention effect on the young adult outcomes is that the MTFC girls who became pregnant by 2 years baseline had a constellation of behaviors and risk factors that not only resulted in pregnancy despite an intensive and generally effective intervention but also was associated with other substance use and health behaviors that predicted long-term difficulties. Conversely, perhaps the girls for whom GC was effective had developed skill sets that not only helped them avoid pregnancy but also helped them avoid health-risking behaviors. As such, a pregnancy (or the avoidance of a pregnancy) becomes an event that alters subsequent developmental pathways, regardless of original intervention condition.

Our results also suggest that, although rates of marijuana use declined over time, there was significant continuity in marijuana use. Baseline marijuana use was the only significant predictor of marijuana use in young adulthood, increasing the odds of use during young adulthood by 2.76 times. It should be noted that the rates of marijuana use and other illicit drug use were high in the current sample relative to the general population. At the baseline assessment, 79% of the girls in the current study reported lifetime marijuana use, and 64% reported other illicit drug use. By comparison, in a national sample of youth of similarly aged adolescents (8th–12th grade), 29–38% reported lifetime use of marijuana, and 18–24% reported lifetime use of other illicit drugs during the study enrollment period (1997–2006; Johnston, O'Malley, Bachman, & Schulenberg, 2011). This suggests the potential preventive benefit of targeting adolescent girls with high rates of marijuana use in an effort of prevent ongoing use into young adulthood.

The present results should be considered within the context of the study limitations. First, as noted in Kerr et al. (2009), the pregnancies reported here were not medically verified. Additionally, it was not possible to enumerate the number of pregnancies each girl had within each time period. Second, the results might not generalize to urban or more ethnically diverse samples of juvenile justice girls. Although the present sample was more ethnically diverse than the general region, there were fewer racial minorities than in urban juvenile justice populations. Third, the mean age of the young women at the last follow-up assessment in the present study was 22 years, which is still young for considering outcomes related to child welfare involvement; in the coming years, additional births and parenting experiences are anticipated for this sample. Additional data collection is planned through mean age 25 years, which will allow for a more thorough examination of child welfare-related outcomes in future years. Finally, as noted previously, our analytic models were not designed to offer a comprehensive test of the long-term effects of the MTFC intervention on substance use and child-bearing outcomes; thorough testing awaits completion of ongoing assessments across young adulthood.

Despite these limitations, our findings have clear implications for prevention. First, interventions evidenced to prevent teen pregnancy in high-risk (i.e., substance-using and delinquent) populations might alter the long-term developmental course of girls by preventing teen pregnancies. In turn, high-risk girls who make it through their adolescent years without becoming pregnant are significantly less likely to engage in illicit drug use, are less likely to have a miscarriage, and are less likely to be referred to the child welfare system for parenting concerns in young adulthood. Preventing this set of young adult outcomes has significant potential cost savings to society in addition to improving the quality of life for these young women and their child(ren). In addition, as noted above, preventing teen marijuana use in this population might decrease rates of marijuana use in young adulthood, further improving adjustment outcomes for this population and reducing costs to society.

Future work in this area is needed to better understand the specific mediating processes leading to the positive outcomes found for youths who did not become pregnant by 2 years postbaseline. That is, what specific intervention components resulted in the positive effects, and what postpregnancy events contributed to the cascade of negative outcomes if a girl did become pregnant? Consistent with the present findings, other youth prevention programs that have demonstrated positive effects on reducing pregnancy rates have also not focused directly on pregnancy prevention and sexual behavior (Lonczak, Abbott, Hawkins, Kosterman, & Catalongo, 2002) or have included sexual education as part of a broader youth development program (Allen, Philliber, Herrling, & Kuperminc, 1997). These effective programs included components such as parent and teacher training in behavior management, tutoring, promotion of school bonding, child social and emotional skill-building, health care (mental, medical, and reproductive), and facilitating employment and volunteerism, all of which are components of the MTFC intervention and therefore are suggestive of potential mediating mechanisms.

The current results, combined with those from prior researchers, support the theory that altering general developmental pathways that lead to a host of negative outcomes might be more effective than exclusively targeting problem-specific behaviors, skills, and attitudes thought to be directly related to teen pregnancy. For delinquent, substance-using girls, programs that target the general behaviors and contexts that underlie an array of problem behaviors might be effective at preventing pregnancy and might then impact later developmental outcomes. Additional research is needed to more fully test and understand the mechanisms that can improve outcomes for girls with histories of delinquency and substance use to better prevent teen pregnancies and the cascading effects that follow into young adulthood.

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Table 1

Values on Study Variables by Group

Covariate/outcome	GC	MTFC
Baseline		
Marijuana use (<i>n</i> = 163)	81.0	77.2
Other illicit drug use (<i>n</i> = 162)	65.1	62.0
2-year follow-up		
At least 1 pregnancy since baseline (<i>n</i> = 164)	50.6	28.4
Young adulthood		
Age in years (<i>M</i> [<i>SD</i>]; <i>n</i> = 157)	22.30 (2.91)	22.97 (3.22)
Marijuana use (<i>n</i> = 139)	35.3	43.7
Other illicit drug use (<i>n</i> = 139)	27.9	31.0
Miscarriage of a new pregnancy (<i>n</i> = 157)	26.6	24.4
Child welfare involvement (<i>n</i> = 145)	27.5	19.7

Note. MTFC = Multidimensional Treatment Foster Care; GC = group care. Values represent percentages unless otherwise noted.

Table 2

Results of Logistic Regression Models Predicting Young Adult Outcomes

Predictor	B	SE(B)	OR	95% CI
Prediction of young adult marijuana use ^a				
Group	0.45	0.37	1.56	
Age	-0.09	0.06	0.92	
Baseline marijuana use	1.01	0.49	2.76*	1.05–7.23
2-year follow-up pregnancy	-0.11	0.28	0.90	
Constant	0.62	1.39	1.86	
Prediction of young adult other illicit drug use ^b				
Group	0.40	0.40	1.49	
Age	-0.03	0.07	0.98	
Baseline other illicit drug use	0.53	0.41	1.69	
2-year follow-up pregnancy	0.63	0.30	1.89*	1.06–3.36
Constant	-1.17	1.50	0.31	
Prediction of miscarrying with a new pregnancy after the 2-year follow-up ^c				
Group	0.10	0.42	1.10	
Age	0.21	0.07	1.23**	1.08–1.40
2-year follow-up pregnancy	1.35	0.42	3.87**	1.70–8.80
Constant	-6.58	1.61	0.00	
Prediction of child welfare involvement for own parenting during young adulthood ^d				
Group	-0.30	0.42	0.74	
Age	0.09	0.07	1.09	
2-year follow-up pregnancy	0.59	0.30	1.81*	1.01–3.24
Constant	-3.37	1.54	0.03	

Note. B = unstandardized β ; OR = odds ratio; CI = confidence interval; MTFC = Multidimensional Treatment Foster Care; GC = group care. Marijuana use and other illicit drug use were coded as 0 (*negative*) or 1 (*positive*). Group was coded as 0 (*GC*) or 1 (*MTFC*). 2-year follow-up pregnancy was coded as 0 (*no pregnancies*), 1 (*a new pregnancy in one of the time periods*), or 2 (*a new pregnancy in both time periods*)

^aModel R^2 ($n = 137$) = .072.

^bModel R^2 ($n = 136$) = .068.

^cModel R^2 ($n = 157$) = .200.

^dModel R^2 ($n = 145$) = .078.

* $p < .05$.

** $p < .01$.