

# Dating Violence Prevention for Juvenile-Justice Involved Females: A Hybrid Trial

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abstract

**OBJECTIVE:** The primary objective of this hybrid I clinical trial of Date SMART (Date Skills to Manage Aggression in Relationships for Teens) was to reduce adolescent dating violence (ADV) among juvenile-justice involved females over 1 year. Secondary objectives were to determine if the intervention reduced sexual risk behavior and delinquency. Last, we evaluate system buy-in *vis à vis* mandated referrals to the program.

**METHODS:** Participants were females, ages 14 to 18 ( $N = 240$ ), involved in a family court in the Northeast United States. The Date SMART group intervention consisted of cognitive-behavioral skill building, and the knowledge-only comparison group consisted of psychoeducation regarding sexual health, ADV, mental health and substance use.

**RESULTS:** Court mandates to intervention were common (41%). Among those with ADV exposure, Date SMART participants reported fewer acts of physical and/or sexual ADV (rate ratio, 0.57; 95% confidence interval [CI], 0.33–0.99) and cyber ADV (rate ratio, 0.75; 95% CI, 0.58–0.96) at follow-up, relative to control. There were significant reductions in the number of vaginal and/or anal sex acts reported by Date SMART participants relative to control (rate ratio, 0.81; 95% CI 0.74–0.89). In the overall sample, within group reductions in some ADV behaviors and delinquency were observed in both conditions.

**CONCLUSIONS:** Date SMART was seamlessly integrated into the family court setting and received stakeholder buy-in. Although not superior to control as a primary prevention tool, Date SMART was effective in reducing physical and/or sexual ADV, and cyber ADV, as well as vaginal and/or anal sex acts, among females with ADV exposure over 1 year.



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**DOI:** <https://doi.org/10.1542/peds.2021-056010>

Accepted for publication Dec 16, 2022

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**WHAT'S KNOWN ON THIS SUBJECT:** Adolescent girls in the justice system experience high rates of dating violence involvement with serious consequences for their immediate and long-term wellbeing. To date, no efficacious interventions exist to address dating violence and associated risks among this high-risk population.

**WHAT THIS STUDY ADDS:** The first hybrid trial to test Date SMART in a family court. Females with dating violence experience were less likely to report dating violence over 1 year when randomized to Date SMART versus the comparison group.

**To cite:** Rizzo CJ, Collibee C, Barker D, et al. Dating Violence Prevention for Juvenile-Justice Involved Females: A Hybrid Trial. *Pediatrics*. 2023;151(4):e2021056010

Females in the juvenile justice (JJ) system are a uniquely high-risk group for dating violence (ADV) exposure during their adolescent years.<sup>1,2</sup> High rates of ADV involvement in this population are linked to multiple intersecting vulnerabilities including histories of childhood abuse, family and community violence exposure, and mental health issues.<sup>1,3</sup> There is significant overlap between ADV and delinquency-related violence,<sup>4-6</sup> as well as other relationship risk behaviors such as unprotected sex.<sup>7,8</sup>

Despite known risks, no evidence based ADV prevention programs exist for justice involved females. Date Skills to Manage Aggression in Relationships for Teens (Date SMART)<sup>9</sup> was designed to address theory-derived mechanisms underlying the emergence of ADV, as well as sexual risk behaviors among adolescent girls with ADV histories. Date SMART uses cognitive behavioral and dialectical behavior skills to target mental health symptoms (eg, depressed mood), emotional dysregulation, and interpersonal skills deficits (eg, communication and problem solving) (see Rizzo et al<sup>9</sup> for details). A pilot randomized controlled trial of Date SMART with adolescent females endorsing histories of physical and/or sexual ADV revealed promising change in ADV behaviors.<sup>9</sup> Given documented connections between ADV and delinquency,<sup>10</sup> Date SMART also has the potential to reduce delinquent behaviors, such as criminal and status offending. Further, Date SMART was found to reduce physical dating violence perpetration most effectively among those with higher levels of initial depression risk.<sup>11</sup> Given that justice involved females present with especially high rates of depression,<sup>12</sup> as well as elevated rates of ADV involvement,<sup>2</sup> Date SMART is

well-suited for ADV prevention in this population.

Despite these promising indicators, no program can achieve successful implementation and dissemination unless it fits within the system and receives buy-in from the stakeholders involved.<sup>13</sup> Unfortunately, the sequential nature of efficacy and effectiveness trials prevents many programs from directly reaching youth in a timely manner.<sup>14</sup> For this reason, hybrid trial designs<sup>15</sup> that retain core components of efficacy trials (randomization, controlled conditions) and essential elements of effectiveness research (eg, participant diversity, standardized training procedures) reduce time to implementation. To meet these needs, a type 1 hybrid trial approach was implemented whereby Date SMART was tested in an randomized control trial under “real-world” conditions. Furthermore, family court procedures, such as referral practices, can reflect system buy-in regarding prevention programming. Judges or magistrates have discretion to mandate youth to participate in groups such as Date SMART. As such, rates of mandated referrals to participate in our groups were tracked to serve as an indicator of buy-in from these key stakeholders.

The objectives of this study are to (1) examine the primary and indicated prevention effects of Date SMART on ADV among JJ-involved females over a 12-month period; (2) examine the primary and indicated prevention effects of Date SMART on unprotected sex and delinquency and (3) evaluate system buy-in as reflected in rates of mandated referrals to our groups. Consistent with a type 1 hybrid trial, all research procedures maximized real-world conditions to expedite the

transition from evaluation to dissemination.

## METHOD

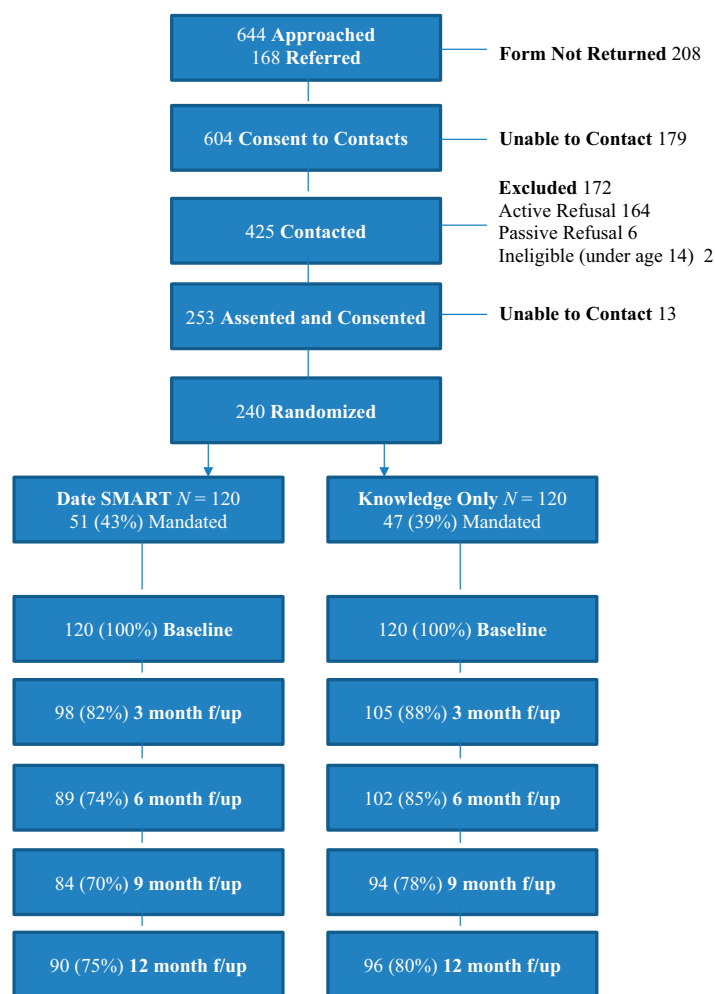
This study was conducted between September 2014 and September 2019. It was approved by the [blinded institution] institutional review board, and human subjects’ protections oversight was provided by a data and safety monitoring board.

### Participants

Adolescent females (14–18 years old) with an open family court petition were recruited from a family court in the Northeast United States. To enhance real-world conditions, females from all levels of the family court system (eg, intake, truancy court, formal calendar, group homes serving justice involved youth) were eligible, regardless of dating status or ADV history. As shown in Figure 1, participants were urn randomized into the Date SMART experimental intervention (DS;  $n = 120$ ) or a knowledge-only comparison (KO;  $n = 120$ ). Retention rates to the final 12-month assessment were excellent: 75% in DS and 80% in KO.

### Procedures

Adolescent were recruited surrounding appointments with court staff. Youth were also referred to the study by intake workers, judges, and magistrates. Adolescents placed in group homes serving justice involved youth were offered the opportunity to participate as well. Although participation in one of our intervention groups (DS or KO) could be mandated by a magistrate or judge, participation in the research portion was voluntary. Court staff were not involved in data collection, nor aware of whether an adolescent was participating in research.



**FIGURE 1**  
Consort.

After obtaining assent and parental consent for minors (14–17 years old) and informed consent for adults (age 18), participants completed a baseline audio computer-assisted self-interview survey on tablet computers, an interview, and paper-pencil questionnaires. Adolescents were then randomized in blocks of 8 to condition. Group homes were randomized as a unit. Assessments were completed every 3 months through the final 12-month follow-up. Participants received \$40 for each assessment.

### Interventions

Both groups were matched for time, attention, and approach (eg, discussions, games). They included

6 weekly group sessions (2 hours each), followed by 1 booster session 6 weeks after the active phase. All sessions were implemented at the family court, aside from 6 of the 41 cohorts whose sessions were implemented in youth group homes.

**Date SMART (DS)** is a cognitive behavioral therapy group intervention focused on providing skills related to depression and aggression reduction, emotion regulation, and relationship communication, to reduce ADV and unprotected sex. A detailed summary of the intervention can be found in Rizzo et al.<sup>9</sup>

**Knowledge Only (KO)** is an active intervention group developed to provide interactive games and activities that educate youth about dating violence and sexual health, as well as other common health topics. The ADV and sexual health content aims to increase knowledge, as well as shift attitudes. Cognitive behavioral therapy skills are not presented.

### Curriculum Training and Fidelity

All groups were led by 2 facilitators. To promote system integration, family court staff were trained as facilitators, in addition to masters and doctoral-level psychology trainees, using standardized training procedures and manuals. Facilitator assignments were made by drawing from this large pool of staff or trainees ( $n = 17$ ), with 38% of groups led by a facilitator team that included at least 1 court staff. Intervention fidelity was achieved through intervention manuals and weekly supervision meetings. Sessions in both arms were audiotaped (83%) to ensure proper implementation. Facilitator-completed ratings revealed excellent (98%) manual adherence, as did doctoral-level project staff ratings (rated for 20% of sessions; 97% adherence). There were no significant differences in adherence to the treatment manual between intervention arms or on the basis of whether a court staff was serving as 1 of the facilitators.

### RCT Measures

#### Demographics

Participants reported demographic information including age, sex, race, ethnicity, teen residing in a single parent household, and access to free or reduced price lunch.

#### Dating Violence and Sexual Behavior

For all surveys, the term ‘partner’ was defined as “a boyfriend or girlfriend, sexual partner, or

someone you are going out with. You could be committed to this person (dating only them) or you could be in an open relationship where you are dating other people.”

### *Conflict in Adolescent Dating Relationships Inventory*

The Conflict in Adolescent Relationships Inventory<sup>16</sup> is a 35-item measure assessing ADV perpetration and victimization with demonstrated reliability and validity.<sup>16</sup> It includes response options from “never” to “often” (happened more than 6 times). At baseline, participants reported on lifetime ADV and past 90-day ADV. Follow-ups assessed the past 3 months. Perpetration and victimization experiences for all forms of ADV were correlated (Pearson  $r_s = 0.20-0.67$ ), suggesting mutual aggression and consistent with the larger literature.<sup>24-26</sup>

### *Digital Relationship Behaviors (Designed for This Study)*

The Digital Relationship Behaviors includes 20 items assessing cyber dating abuse perpetration and victimization (eg, “has a dating partner asked for a personal password to a social networking site?”) Internal consistency for this scale was excellent ( $\alpha = 0.83$ ).

### *TLFB-DV (Adapted From Fals-Stewart and Colleagues<sup>17</sup>)*

The Timeline Followback-Dating Violence (TLFB-DV) is a semistructured calendar-based interview method for assessing recent relationship violence on the basis of the TLFB-Spousal Violence interview with excellent test-retest reliability and evidence for both concurrent and discriminant validity.<sup>17</sup> The TLFB-DV was administered by a trained research staff to measure the number of days participants were engaged in a romantic relationship, as well as

incidents of physical ADV (hit, slapped, punched) and sexual ADV (forced sex) with each partner.

### *Sexual Risk Behavior*

#### *Adolescent Risk Behavior Assessment<sup>18</sup>*

Adolescents reported whether they’d ever had vaginal or anal sex at baseline, the number vaginal and/or anal sex acts, and the number of condomless sex acts over the past 90 days. Oral sex was not examined, because the sexual health content in the intervention focused on vaginal and/or anal sex.

### *Delinquency*

#### *Delinquency Activities Scale<sup>19</sup>*

The Delinquency Activities Scale is a 40-item checklist based in part on the Self-Reported Delinquency Scale<sup>20</sup> and designed to assess delinquent offenses (eg, “Have you attacked someone with the idea of seriously hurting or killing him/her?”). Adolescents responded “yes or no.” Total counts were computed for lifetime at baseline and for the past 3 months at follow-ups.

### *Court Involvement*

Legal information regarding source of referral (eg, truancy, intake) and any history of incarceration was extracted from a statewide court database of all juveniles processed through the family court.

### *Mandated Group Participation*

As a metric of system buy-in, we monitored whether judges or magistrates chose to mandate participation in a group intervention (research enrollment remained voluntary).

### *Analytic Approach*

#### *Balance Between Treatment Conditions*

Pretest equivalence of conditions on demographics and outcome variables was assessed by using analyses of variance for

continuously scaled variables and  $\chi^2$  tests of independence for categorical variables. The size of the difference was estimated by using standardized mean difference scores using tableone v0.12.0.

### *Missing Data*

Missing data ranged from 1% to 7% at baseline and 23% to 31% at 12 months. For the TLFB, 77% completed all assessments. Participants who missed previous assessments were asked to complete an extended TLFB-DV interview that covered the missed assessments. Bias because of missing values was addressed by using multiple imputations with imputations generated through chained equations,<sup>21</sup> with 100 imputations generated using the R package *mice* v3.13.

### *ADV, Unprotected Sex, and Delinquency Outcomes*

Generalized estimating equations were used to model change from baseline to the 12-month follow-up for all primary and secondary outcomes (primary prevention). This approach accounted for nesting of assessments (baseline and 12-months) within participant and for overdispersion in the count outcomes because of zero-inflation. We examined between cohort variation on the outcomes using the median rate ratio,<sup>27</sup> which provides an estimate of the strength of cohort context in the metric of rate ratios. The median rate ratio ranged from 1.00 to 1.32 with an average among outcomes of 1.07. Given the limited between cluster variation we chose to simplify the models by not modeling the nesting of participants within cohort. For outcomes distributed as counts, the models were fit with a Poisson distribution, log link function, and exchangeable working correlation structure. All models included recruitment source

(juvenile intake department versus other) as a covariate. Effect sizes were estimated by using rate ratios. Self-report measures were not behavioral counts per se, but data followed a zero-inflated distribution and data were transformed to integers to run the models.

ADV, sexual risk behaviors, and delinquency followed zero-inflated distributions. For ADV and sexual risk behaviors the zero-inflation had 2 sources, those who were not in a dating relationship and those in a relationship but not reporting the behavior. For primary prevention analyses, we used a hurdle model evaluating no-ADV versus ADV with logit link and binomial distribution. Among those reporting any ADV (indicated sample), we used a model with log link and zero-truncated Poisson to model amount of ADV. The same analyses were run for sexual risk behaviors. Given the size of the indicated sample, perpetration and victimization scores were combined to reflect ADV involvement. This decision was supported by our data and is consistent with previous work.<sup>24</sup> For delinquency, a hurdle model was run by using the full sample instead of just those reporting a dating relationship.

### Cumulative Analyses

We again used generalized estimating equations for behaviors that were able to be summed across the 6- to 12-month follow-up to assess primary prevention and indicated prevention effects. The models were largely the same as those used for the primary and secondary outcomes except that we included an offset term to account for individual differences in the amount of time between baseline and the cumulative sum.

## RESULTS

### Baseline Characteristics

Adolescent females ( $N = 240$ ) had a mean age of 15.58 years. The sample was 33% White, 27% African American, 14% American Indian, 2% Asian, 1% Hawaiian or Pacific Islander, and 24% identified as other. Roughly 49% percent of youth ethnically identified as Hispanic. Just under one-half of juveniles resided in a single parent household (47%). A majority qualified for a free or reduced-price lunch (79%). Forty-three percent identified as bisexual, homosexual, or undecided. Seventy-six percent of youth were dating at baseline. There

was no significant difference between conditions on baseline characteristics (Table 1). Regarding system buy-in, a large portion (41%) were mandated to participate in a group by a magistrate or judge.

### Primary Prevention

Baseline and 12-month outcomes are shown in Tables 2 and 3. Primary prevention analyses among the full sample revealed decreases in rates of ADV in both treatment conditions, with larger decreases in Date SMART, although these differences do not reach statistical significance. Among the full sample, there were minimal changes in unprotected

**TABLE 1** Baseline Characteristics by Treatment Condition

Variable	KO ( $n = 120$ )	DS ( $n = 120$ )	SMD
Recruitment source			0.25
Group home	18 (15.0)	27 (22.5)	
Juvenile services or intake	84 (70.0)	81 (67.5)	
Truancy	13 (10.8)	7 (5.8)	
Other, drug court, formal	5 (4.1)	5 (4.1)	
Truancy petition	66 (55.0)	55 (46.6)	0.17
Ever been incarcerated	1 (0.8)	6 (5.0)	0.25
Delinquency (DAS) per month	0.26 (0.38)	0.31 (0.45)	0.14
Age	15.63 (1.11)	15.53 (1.13)	0.10
Race and ethnicity			
Hispanic	55 (45.8)	62 (52.1)	0.13
White	35 (29.4)	42 (35.6)	
Black	34 (28.6)	30 (25.4)	
American Indian	17 (14.3)	15 (12.7)	
Asian	3 (2.5)	2 (1.7)	
Hawaiian or Pacific Islander	1 (0.8)	2 (1.7)	
Other	29 (24.4)	27 (22.9)	
Single parent household	52 (47.3)	54 (46.2)	0.02
Receiving school lunch			0.15
Free	75 (63.6)	83 (69.7)	
Full price	25 (22.0)	24 (20.2)	
Reduced price	17 (14.4)	12 (10.1)	
Sexual orientation			0.17
Bisexual	36 (30.0)	38 (31.7)	
Heterosexual	72 (60.0)	64 (53.3)	
Homosexual	5 (4.2)	8 (6.7)	
Undecided	7 (5.8)	10 (8.3)	
Ever dated, yes or no	99 (86.1)	105 (89.0)	0.09
ARBA, number vaginal and/or anal sex acts per month	1.57 (4.16)	1.29 (4.36)	0.06
ARBA, number condomless sex acts per month	1.25 (4.01)	0.83 (3.90)	0.11
CADRI, emotional and/or verbal perpetration	0.56 (0.66)	0.53 (0.56)	0.06
CADRI, emotional and/or verbal victimization	0.61 (0.72)	0.57 (0.65)	0.06
CADRI, physical or sexual perpetration	0.10 (0.24)	0.08 (0.19)	0.09
CADRI, physical or sexual victimization	0.15 (0.35)	0.15 (0.43)	0.01
DRB, digital ADV	0.65 (0.86)	0.54 (0.76)	0.14
TLFB, physical or sexual ADV events	0.38 (1.95)	0.12 (0.65)	0.18

ARBA, Adolescent Risk Behavior Assessment; CADRI, Conflict in Adolescent Relationships Inventory; DRB, digital relationship behaviors; SMD, standardized mean difference.

**TABLE 2** Primary Prevention Effects for ADV, Unprotected Sex, and Delinquency: 12 Month Outcomes

	KO			Effect Size <sup>a</sup> (95% CI)	DS			Effect Size <sup>a</sup> (95% CI)	Between Condition
	Baseline	12 Mo			Baseline	12 Mo			Effect Size <sup>a</sup> (95% CI)
12 mo outcomes									
Dating violence									
CADRI, emotional and/or verbal perpetration	0.56 (0.66)	0.30 (0.56)	0.60 (0.44–0.84)*	0.53 (0.56)	0.26 (0.39)	0.51 (0.37–0.71)*		0.84 (0.53–1.33)	
CADRI, emotional and/or verbal victimization	0.61 (0.72)	0.31 (0.54)	0.58 (0.42–0.79)*	0.57 (0.65)	0.30 (0.45)	0.51 (0.36–0.72)*		0.89 (0.55–1.43)	
CADRI, physical and/or sexual perpetration	0.10 (0.24)	0.08 (0.37)	0.86 (0.36–2.09)	0.08 (0.19)	0.05 (0.16)	0.68 (0.3–1.54)		0.79 (0.24–2.56)	
CADRI, physical and/or sexual victimization	0.15 (0.35)	0.09 (0.37)	0.64 (0.27–1.53)	0.15 (0.43)	0.05 (0.13)	0.35 (0.14–0.84)*		0.54 (0.16–1.79)	
DRB-digital ADV	0.65 (0.86)	0.24 (0.45)	0.40 (0.28–0.58)*	0.54 (0.76)	0.14 (0.31)	0.28 (0.18–0.46)*		0.70 (0.39–1.28)	
TLFB, physical and/or sexual ADV	0.38 (1.95)	0.06 (0.27)	0.15 (0.04–0.50)*	0.12 (0.65)	0.02 (0.08)	0.18 (0.04–0.72)*		1.18 (0.04–7.72)	
Sexual behaviors									
ARBA, number of sex acts	1.58 (4.17)	2.23 (5.18)	1.60 (0.88–2.90)	1.29 (4.36)	1.35 (3.71)	1.32 (0.60–2.93)		0.81 (0.31–2.18)	
ARBA, number of condomless sex acts	1.26 (4.03)	1.38 (4.14)	1.19 (0.56–2.52)	0.83 (3.9)	1.05 (3.60)	1.34 (0.46–3.86)	1.13	90.31–4.05)	
Delinquency									
DAS, delinquent acts	0.26 (0.38)	0.05 (0.17)	0.17 [0.08–0.36]*	0.31 (0.45)	0.06 (0.15)	0.17 [0.09–0.30]*	0.96	[0.39–2.39]	

ARBA, Adolescent Risk Behavior Assessment; CADRI, Conflict in Adolescent Dating Relationships Inventory; CI, confidence interval; DAS, Delinquency Activities Scale; DRB, Digital Relationship Behaviors.

<sup>a</sup> Effect sizes were estimated using rate ratios for count variables and standardized difference scores for continuously scaled outcomes. All rates were per month. \*Significant effect.

sex and delinquency. When examining cumulative outcomes, both conditions showed decreases in physical and/or sexual dating violence as measured by the TLFB (Table 3). There were minimal differences between conditions.

**Indicated Prevention**

Among those that reported violence, we examined how much ADV, vaginal and/or anal sex, unprotected sex, and delinquency was reported (Table 4). Those in the Date SMART condition reported lower rates of physical or sexual and cyber ADV involvement over follow-up.

**DISCUSSION**

Our type 1 hybrid trial of Date SMART<sup>9</sup> suggest that a skills-based program for adolescent females in the justice system may lead to reductions in physical and sexual dating violence, as well as cyber dating abuse involvement, for those females with histories of ADV exposure. These findings emerged under real world conditions whereby trained family court staff coled many groups, and all adolescent females (ages 14–18) were eligible to participate regardless of their specific legal charge (eg, truant, delinquent, etc.). Through our trial design, we have

demonstrated that it is feasible to integrate Date SMART into the structure of an existing family court system and, thus, hope to expedite the transition from intervention testing to standard clinical practice within the JJ setting.

The primary objective of this trial was to reduce adolescent dating violence (ADV) among juvenile-justice involved females over 1 year. First, we tested the primary prevention impact of Date SMART on ADV behaviors (victimization and perpetration) among the full sample. Date SMART was not found superior to psychoeducational programming

**TABLE 3** Primary Prevention Effects for ADV, Unprotected Sex, and Delinquency: Cumulative Outcomes

	KO			Rate Ratio (95% CI)	DS			Rate Ratio (95% CI)	Between Condition
	Baseline	Cumulative 6–12 mos			Baseline	Cumulative 6–12 mo			Rate Ratio (95% CI)
Cumulative Outcomes									
Dating violence									
TLFB, physical and/or sexual ADV events	0.38 (1.95)	0.05 (0.19)	0.15 [0.07–0.33]*	0.12 (0.65)	0.05 (0.38)	0.31 [0.08–1.17]		2.10 [0.45–9.82]	
Sexual behaviors									
ARBA, number of sex acts	1.58 (4.17)	1.60 (3.18)	1.25 [0.69–2.29]	1.29 (4.36)	1.04 (2.48)	1.03 [0.5–2.11]		0.82 [0.32–2.08]	
ARBA, number of condomless sex acts	1.26 (4.03)	0.87 (2.39)	0.96 [0.45– 2.05]	0.83 (3.90)	0.80 (2.26)	0.98 [0.36–2.66]		1.02 [0.29–3.52]	
Delinquency									
DAS, delinquent acts	0.26 (0.38)	0.07 (0.19)	0.26 [0.15–0.44]*	0.31 (0.45)	0.07 (0.15)	0.22 [0.14–0.35]*	0.86	[0.43–1.75]	

ARBA, Adolescent Risk Behavior Assessment; CADRI, Conflict in Adolescent Dating Relationships Inventory; CI, confidence interval; DAS, Delinquency Activities Scale; DRB, Digital Relationship Behaviors.

<sup>a</sup> Effect sizes were estimated using rate ratios for count variables and standardized difference scores for continuously scaled outcomes. All rates were per month. \*Significant effect.

**TABLE 4** Indicated Prevention Effects for ADV, Unprotected Sex, and Delinquency

	KO	DS	Odds Ratio or Rate Ratio (95% CI)
12 mo outcomes			
Any partner, %	58 (56)	58 (52)	1.02 (0.57–1.82)
Dating violence			
CADRI, any physical and/or sexual ADV, %	39 (20)	39 (19)	0.94 (0.42–2.10)
Amount of physical and/or sexual ADV	0.77 (1.44)	0.46 (0.42)	0.57 (0.33–0.99)*
CADRI, any emotional and/or verbal ADV, %	72 (36)	80 (39)	1.14 (0.47–2.80)
Amount of emotional and/or verbal ADV	1.44 (1.12)	1.23 (0.80)	0.88 (0.74–1.04)
DRB, any digital ADV, %	59 (33)	49 (25)	0.62 (0.29–1.30)
Amount of digital ADV	0.71 (0.50)	0.51 (0.40)	0.75 (0.58–0.96)*
Sexual behaviors			
ARBA, any vaginal and/or anal sex, %	60 (31)	47 (22)	0.71 (0.32–1.59)
Number of sex acts	6.61 (7.18)	5.14 (5.83)	0.84 (0.59–1.17)
ARBA, any condomless sex acts, %	42 (22)	32 (15)	0.76 (0.33–1.75)
ARBA, number of condomless sex acts	5.79 (6.91)	5.89 (6.80)	0.96 (0.68–1.38)
Delinquency			
DAS, any delinquency, %	9 (9)	14 (12)	1.30 (0.53–3.19)
Number of delinquent acts	0.16 (0.11)	0.14 (0.05)	0.78 (0.15–4.04)
Cumulative outcomes			
Any partner, %	82 (69)	79 (54)	0.83 (0.38–1.83)
Dating violence			
TLFB, any physical and/or sexual ADV events, %	22 (15)	15 (8)	0.87 (0.38–1.95)
TLFB, physical and/or sexual ADV events	0.29 (0.38)	0.33 (0.60)	1.02 (0.56–1.85)
Sexual behaviors			
ARBA, any vaginal and/or anal sex, %	53 (31)	42 (19)	0.61 (0.31–1.17)
ARBA, number of vaginal and/or anal sex acts	3.76 (3.98)	3.23 (3.56)	0.81 (0.74–0.89)*
ARBA, any condomless sex acts, %	33 (19)	31 (14)	0.62 (0.31–1.22)
ARBA, number of condomless sex acts	3.35 (3.75)	3.36 (3.69)	1.02 (0.92–1.13)
Delinquency			
DAS, any delinquency, %	31 (26)	28 (19)	0.93 (0.51–1.72)
Number of delinquent acts	0.24 (0.27)	0.25 (0.20)	0.79 (0.48–1.27)

ARBA, Adolescent Risk Behavior Assessment; CADRI, Conflict in Adolescent Dating Relationships Inventory; DAS, Delinquency Activities Scale; DRB, Digital Relationship Behaviors. \* Significant effect.

as a primary prevention program. Rather, both interventions produced reductions in some ADV experiences (emotional or verbal ADV, physical or sexual ADV, and cyber dating abuse). Neither group reduced physical or sexual ADV perpetration rates at 12 months, whereas cumulative counts of physical and/or sexual ADV involvement were reduced. Importantly, both groups offered an opportunity for justice-involved females who share common experiences to discuss relationship related topics led by trained facilitators. Within-group change in ADV may have been fostered by gains in social support, which has been shown to reduce ADV experiences<sup>22</sup> and may be a powerful tool for primary prevention of ADV.

Next, we tested indicated prevention effects of Date SMART on ADV. The presence or absence of ADV was not related to intervention group. However, as expected, we found that ADV-exposed females in Date SMART reported fewer total instances in physical and/or sexual and cyber ADV experiences relative to the control condition. Reductions in the amount of emotional or verbal abuse were observed, although between-group effects were nonsignificant. Thus, Date SMART did not influence the presence of violent relationships but did reduce the amount of ADV taking place in those relationships. These findings are consistent with our previous work showing the benefit of Date SMART for adolescent females with serious ADV exposure.<sup>9</sup> It also suggests that

those with current ADV involvement are applying the intervention skills learned to their current dating relationship.

Our second aim was to examine the impact of Date SMART on unprotected sex and delinquency. No primary prevention effects were observed. Indeed, previous evaluations of sexual risk prevention programs for adolescents in the general population have proven to be less effective at reducing sexual risk in justice settings.<sup>23</sup> With regard to delinquency, many participants had some level of court monitoring during the 12-month follow-up period; thus, a longer follow-up period is needed to understand program impact on delinquency once court involvement ceases. In our indicated sample, we observed reductions in the amount of vaginal and/or anal sex acts reported over the 12-month follow-up period. Reduction in sex acts was not a target of the intervention; however, Date SMART teaches skills related to resisting pressured sexual experiences. The overall reductions in sex acts observed in our indicated sample may reflect reductions in pressured sex, but further work is needed to understand this finding.

Our final goal was to examine system buy-in by monitoring the decision by judges or magistrates to mandate youth to participate our groups. We did observe a large proportion of youth being mandated to treatment. This suggests that court staff perceived potential benefits from our program.

### Limitations

First, data collection relied on participant self-report. Future research that captures partner and naturalistic data of the dyadic experiences is needed. Second, although court staff coled many groups, we do not know whether translation to other justice settings

could be hampered by the need for court staff to serve as the sole facilitators of these groups. Finally, given our use of an active control, identifying statistically significant differences between groups was more challenging than if we had implemented a no treatment comparison.

## CONCLUSIONS

Our findings demonstrate that Date SMART is comparable to psychoeducational programming as a

primary prevention tool but is superior as an intervention program to reduce ADV among females with ongoing ADV involvement. These findings emerged in the context of a hybrid trial, where we aimed to replicate real-world conditions for implementation. Thus, Date SMART has the potential to help reduce ADV involvement among justice involved females most at-risk for ongoing dating violence experiences and is ready to be rapidly evaluated and disseminated to other family court systems.

## ABBREVIATIONS

ADV: adolescent dating violence  
CI: confidence interval  
DS: Date SMART  
JJ: juvenile justice  
KO: knowledge only  
SMART: Skills to Manage Aggression in Relationships for Teens  
TLFB: Timeline Followback  
TLFB-DV: Timeline Followback-Dating Violence

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

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**FUNDING:** All phases of this study were supported by an NIH grant R01HD080780.

**CONFLICT OF INTEREST DISCLOSURE:** The authors have no conflicts of interest relevant to this article to disclose.

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