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A Parent-Based Intervention to Prevent HIV Among Adolescent Children of Mothers Living with HIV: The Ms. Now! Program

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Abstract

One group often overlooked by HIV prevention efforts is adolescent children of mothers living with HIV (MLH). Despite their potential vulnerability, very few evidence-based prevention programs exist for this population in the United States (U.S.) and elsewhere. The current study introduces a parent-based program adapted for families affected by HIV for the purpose of preventing adolescent HIV infection. Following a structured process of adaptation, 12 African American MLH-adolescent dyads were recruited from HIV clinics and non-governmental organizations in a southeastern U.S. city to participate in a feasibility pilot evaluation of the adapted program (Moms Stopping It Now! [Ms. Now]). The intervention consisted of group and individual sessions implemented in a university setting and at participants' homes, respectively. We determined feasibility through assessing participant acceptability and signs of intervention efficacy. Quantitative and qualitative process data revealed high levels of acceptability, as participants were largely satisfied and engaged with Ms. Now, and were willing to attend most sessions. In addition, positive intervention effects approaching medium to large effect sizes were observed for some protective parenting outcomes, including increases in parent-child relationship quality, parental monitoring, maternal HIV disclosure self-efficacy, and communication about maternal HIV infection. Other outcomes, namely communication about sex topics, did not show positive shifts due to ceiling effects and may be indicative of the pre-existing strengths these MLH possess. Ms. Now's approach and further refinement is discussed in the context of strengthening families affected by HIV. Moreover, we recommend that policy aimed at program development consider jointly targeting these populations (MLH and adolescents) due to the unique benefits of family intervention.

Keywords

HIV; mothers; prevention; adolescent; parent-child communication

INTRODUCTION

An estimated 17.4 million women worldwide are living with HIV (WHO, 2014), many of whom are mothers. Adolescent children of mothers living with HIV (MLH) may be

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particularly vulnerable to HIV infection through intergenerational patterns of risk (Cluver & Operario, 2008). Family-based risk adds to an already heightened vulnerability for youth compared to other groups—for example, in the United States, 26% of all new HIV infections occur in young people yearly (CDC, 2012), and globally, this estimate increases to 40% (UNAIDS, 2012). Despite the call for programming focused on strengthening families affected by HIV (Richter et al., 2009), interventions for adolescents with MLH are rare (e.g., Rotheram-Borus et al., 2003). To reduce HIV-related health risk disparities among young people, we introduce and pilot Moms Stopping It Now! (Ms. Now), an adapted HIV prevention program for MLH and their adolescent children.

Research has repeatedly shown parents are an effective HIV prevention resource for adolescents (Sutton, Lasswell, Lanier, & Miller, 2014). Parents can provide sexual health information, communicate their sexual values, and monitor youth behavior, all factors associated with sexual risk reduction (Cederbaum, Hutchinson, Duan, & Jemmott, 2013; Huang, Murphy, & Hser, 2011). They can also support children during transitioning to adolescence—when risk exposure increases—by maintaining healthy parent-child relationships and open lines of communication (Ackard, Neumark-Sztainer, Story, & Perry, 2006). Collectively, these are protective parenting practices.

Many MLH see infection as a strength (Murphy, Roberts, & Herbeck, 2011), including as a source of knowledge and motivation to discuss topics related to sexual risks with their children (Cederbaum, 2012). Compared to other youth, their adolescent children have reported a greater ability to have these conversations (O'Sullivan, Dolezal, Brackis-Cott, Traeger, & Mellins 2005). HIV disclosure, however, can be particularly difficult, and while disclosure generally leads to positive outcomes (Murphy, 2008), adolescents may experience adverse reactions (Rotheram-Borus, Drainin, Reid, & Murphy, 1997). Thus, researchers have developed interventions to promote healthy disclosure (Murphy, Armistead, Marelich, Payne, & Herbeck, 2011) which includes making it an ongoing process (Hawk, 2007).

For several reasons, the Parents Matter! Program (PMP) was the foundation for Ms. Now. First, PMP is aimed at parents of early adolescents, an important prevention strategy (Kalmuss, Davidson, Cohall, Laraque, & Cassell, 2003). Second, it was developed for and with African Americans, the group most affected by the virus. Third, PMP has proven effective at reducing youth HIV risk and improving protective parenting through an efficacy trial implemented in the southeastern U.S. (Forehand et al., 2009; Miller et al., 2011). Finally, as our formative research confirmed—through qualitative focus groups with MLH, interviews with their children, and feedback from a community advisory board (Tarantino, 2015)—PMP was good fit for this population. However, PMP was not designed for families affected by HIV, thus adaptation was essential to incorporating mothers' experiences of living with HIV. Specifically, while HIV may bring unique opportunities for protective parenting (e.g., conveying HIV knowledge), mothers may struggle with talking to their children about a stigmatized personal experience.

Our formative work illuminated histories of substance misuse among several MLH, leading to disruptions in parent-adolescent attachment (Tarantino, 2015). To begin mending disruptions, strategies were drawn from Attachment-Based Family Therapy (ABFT;

Diamond, Diamond, & Levy, 2014). In addition, techniques from an evidence-based disclosure intervention (the TRACK Program) were built into Ms. Now (Murphy et al., 2011), including strategies to enhance mothers' self-efficacy to continue the disclosure process, a practice not addressed in PMP and one potentially protective of youth HIV risk. Consequently, two theories emerged from the adaptation process that fit well with our understanding of the overall mechanisms of behavioral change of Ms. Now—the theory of planned behavior (Ajzen, 1985) and attachment theory (Bowlby, 1969; Diamond et al., 2014). Specifically, we aimed to shape mothers' attitudes and norms to be consistent with youth risk reduction; enhance their self-efficacy to implement protective parenting practices including continuing the disclosure process; and mend breaks in the parent-child relationship. See Table 1 for Ms. Now's session goals.

Consistent with the adaptation process, our current study aimed to garner evidence for implementing Ms. Now on a larger scale, including using an exploratory approach with a small sample and examining data trends (McKleroy et al., 2006). We also followed established guidelines and defined feasibility in terms of acceptability (engagement, satisfaction, and retention) and signs of efficacy (Bowen et al., 2009; McKleroy et al., 2006). We predicted that Ms. Now would enhance protective parenting practices known to influence youth HIV risk, specifically hypothesizing positive shifts in parent-child communication (general and sex-specific), discussions about maternal HIV infection and self-efficacy to continue the disclosure process, parent-child relationship quality, and parental monitoring.

METHOD

Design and Procedure

A university Institutional Review Board approved all study procedures. MLH-adolescent dyads were recruited for participation from HIV health clinics and NGOs specialized in providing services for individuals living with HIV in an urban setting. With consent obtained via clinic/NGO staff, MLH were contacted and screened for participation. Of the thirteen mothers contacted, twelve agreed to participate ($N = 12$ MLH-adolescent dyads) and one could not be reached again. Informed consent and assent were obtained from MLH and adolescents, respectively. Adolescents had to be HIV-negative, aware of their mother's serostatus, and live with their mother. Only 10-15 year-olds were included given the effectiveness of prevention efforts occurring prior to sexual debut. MLH and one adolescent were then assessed simultaneously and separately at their homes via a laptop-administered audio computer administered self-interview (ACASI) to ensure privacy and reduce biased responding. Afterwards, MLH attended three 4-hour weekly group sessions held at an urban university in the Southeast. Groups were led by a clinical doctoral candidate (first author) and an experienced outreach coordinator. The format included mini-lectures and discussions, videos, role-plays, games, and homework. MLH were given \$100 for attending each group session to compensate for travel, childcare costs, and time off from work. A 1.5-hour home-visit with a facilitator occurred with each family within 1-3 weeks following the last group session; for this and the post-assessment that followed, MLH and youth received \$60 and a

gift card. The home-visit facilitated practice of communication skills and tailored conversations about sensitive topics to the adolescent's developmental level.

Measures

Fidelity—Fidelity for group sessions was measured using a checklist of all session activities (total activities = 57, 42, and 38, for Sessions 1, 2, and 3, respectively). The group helper monitored activities in session and through audio-recordings.

Acceptability—Attendance at each session was documented to assess retention. Engagement was assessed following each group session. Facilitators and a group helper rated participants on a scale that ranged from (0) “most (greater than 50%) participants were not engaged at all” to (3) “most (greater than 50%) participants were very engaged” for each intervention segment. Each segment (10 per session) divided the session into a broader topic (e.g., “Identifying a Safe Person”). Ratings were averaged across segments to come up with an average session rating. MLH reported their satisfaction with each session using the Session Evaluation Form (SEF; Harper, Contreras, Bangi, & Pedraza, 2003). The 10-item SEF assesses degree of satisfaction with responses ranging from strongly agree to strongly disagree. To assess satisfaction qualitatively, two open-ended questions were also asked and audio-recorded at the end of each session by the group helper after the facilitators left the room. Open-ended items queried what participants found to be most useful and what they would change for the session. Global program satisfaction was assessed using the 8-item Client Satisfaction Questionnaire (CSQ-8; Larsen, Attkisson, Hargreaves, & Nguyen, 1979) completed by mothers during the last session. Facilitators also queried mothers and adolescents about their experience with the communication exercise to qualitatively assess satisfaction with this intervention component.

Preliminary efficacy—Except for self-efficacy, measures came from the PMP efficacy trial. An extensive process ensured that items were “reliable, valid, sensitive, age appropriate, and culturally relevant” including being appropriate for children as young as age nine (Ball, Pelton, Forehand, Long, & Wallace, 2004). Where possible, items or scales previously used with African American samples were chosen. When not possible, existing measures were adapted based on feedback from community advisory boards and grade school teachers targeting the relevancy of the items. Subsequently, the revised scales were pilot tested with African American middle school students. Measures assessed current functioning.

Parent-child communication about sex topics was assessed using two scales from PMP (Ball et al., 2004). The first is a 15-item (13-items for youth), 3-point scale (“never,” “once or twice”, and “lots of times”) that assessed frequency of discussing sex topics (e.g., “How many times have you talked to [target child/mother] about what sex is?”). For youth, items containing technical words (e.g., menstruation) or those confusing to youth were explained in simple and common language, and two items (readiness to have sex and birth control) were removed based on pilot feedback. Cronbach's alphas for the PMP sample were .91 for parents and .90 for youth. A breadth of communication about sex topics variable was also created by counting any amount of communication. Perceptions of MLH responsiveness to

sex communication was assessed with a 20- (mothers) or 6-item (youth), 3-point response measure (“not at all true,” “a little true,” or “very true” for parents; “no,” “don’t know,” or “yes” for adolescents) with questions such as “If my son/daughter asked me [If I asked my mom] a question about a sex topic, I [she] would get mad or angry.” Questions only relevant to parents were removed from the youth scale thus reducing it to six items. In PMP’s efficacy trial, Cronbach’s alpha equaled .80 for parents and .70 for youth (Forehand et al., 2007). In addition, adolescents were asked two questions: “Who would be the first person you would go to if you had questions about sex” and “Where do you get most of your information about sex?” Each allowed one response out of a list of individuals (e.g., mother, friends, etc.). Six yes/no questions were also asked of mothers regarding what topics they discussed with their adolescent that were related to their own HIV status (e.g., how she was infected). These disclosure-related items were summed to create a count variable.

Parent-child relationship quality was assessed using a 12- (mothers) or 5- (youth) item, 3-point response scale (Ball et al., 2004). On each scale, items had a 3-point response scale, ranging from “not at all true” to “a little true” to “very true.” Sample questions were “Mom [Target child] shows me that she [target child] loves me.” Cronbach’s alphas for the PMP sample equaled .87 for parents and .77 for adolescents. A 10- (mothers) and 5-item (youth) scale adapted for use in evaluating PMP (Barnes & Olson, 1985; Ball et al., 2004) examined quality of general mother-adolescent communication (i.e., not in reference to a specific topic) on a 3-point scale (“not at all true,” “a little true,” “and very true”) for questions such as, “My son/daughter [mother] and I can talk about almost anything.” Cronbach’s alpha was .79 for parents and .55 for youth in PMP. These scales (relationship quality and general communication) were shortened by the PMP investigators to reduce youths’ assessment burden.

Parental monitoring was assessed using items drawn from a previously used scale (Miller, Forehand, & Kotchick, 1999) and adapted for PMP (Ball et al., 2004), with five items for mothers and four items for youth (e.g., “How often does your parent know where you go when you are not at home”). The parent scale has an extra item related to knowing about the presence of other adults supervising their child. Response options included “never,” “sometimes,” “a lot,” or “often.” In PMP, Cronbach’s alpha was .82 and .78 for parents and youth, respectively.

To assess mothers’ disclosure self-efficacy, MLH were asked eight items related to their degree of confidence discussing maternal HIV infection-related topics with their adolescent. Adapted from a scale used to assess initial disclosure (Murphy et al., 2011), items were reworded to reflect ongoing discussions, “How confident are you that you can continue to talk to your child about your status.” Responses options were also changed from a visual analog scale (0 [not confident at all] to 100 [extremely confident]) to a response scale consistent with other measures used in the current study (0 [not confident at all] to 5 [extremely confident]). Cronbach’s alpha was .90 with the Murphy et al. sample.

Analysis of Pre-Post Data

Analysis of pre-post data for the purpose of establishing signs of efficacy was mainly descriptive. Consistent with calls from the field (Durlak, 2009), we focused on pre-post

effect sizes, using a Cohen's *d* estimate that was adjusted to the correlated design to reduce effect size inflation (Dunlop, Cortina, Vaslow & Burke, 1996). Given the small sample size, necessary for this step of adaptation (McKleroy et al., 2006), we did not expect to find statistically significant effects; nevertheless, paired samples *t* tests were conducted to examine pre-post differences. All participants were assessed post-intervention regardless of number of sessions attended.

RESULTS

Summary of Sample Characteristics

Caregivers were African American mothers and one grandmother ($n = 12$; M age = 40.75, $SD = 9.85$) of a 10 to 15 year-old child ($n = 12$; M age = 12.50, $SD = 1.31$; M grade = 7.12, $SD = 1.40$) living with HIV. On average, mothers had three children and lived with two. Five reported having a co-parent: a boyfriend/partner (1), ex-boyfriend/partner (2), friend (1), or daughter (1). Only one mother said the co-parent lived with her and her child. Many parents endorsed having never been married (67%); others were widowed (8%) or divorced or separated (25%). No mother had been married to the father of her child. Most (83%) were not in a relationship. Mothers were low-income (M house monthly income = \$1224.50, $SD = 518.15$), yet most had at least enough money to "make ends meet" (92%). No mother was employed full-time; 17% were employed part-time; 58% were unemployed; and 25% were students. Most had some college experience or a college degree (67%) and 16 % did not graduate high school.

In terms of HIV status, mothers on average had been living with the virus for 13.67 years ($SD = 8.09$, range = 2-26 years). Forty-two percent of mothers had received an AIDS diagnosis. Mothers reported their CD4 count ($M = 718.08$, $SD = 390.73$), and most had an undetectable viral load (75%). They indicated having disclosed their status to their target child between less than a year to 11 years ago ($M = 2.54$ years, $SD = 2.87$).

Fidelity

Overall, the intervention was implemented with high fidelity. Facilitators completed 98% (51/52), 100% (42/42), and 97% (37/38) of the activities in Sessions 1, 2, and 3, respectively.

Acceptability

Attendance for each session was as follows: Session 1 (92%), Session 2 (75%), Session 3 (83%), and Session 4 (100%). Participants missed sessions because of family emergencies, doctor's appointments, and employment obligations. Eight out of 12 participants (67%) attended all four sessions, and 10 (83%) attended at least three.

Participants rated each session with high satisfaction (Table 2). Following the last session, participants indicated their overall satisfaction using the CSQ-8 (Table 3). Although all participants completed the last session, one did not complete the SEF-4 and CSQ-8 due to an experimenter error.

On average, Sessions 1 and 2 had an engagement score of 2.60 (out of 3.00), and Session 3 had 2.90 (out of 3.00). Engagement was highest in the beginning and decreasing towards the end of each session. Participants seemed more engaged during role-play activities and when the topic was sexual risk.

At Session 4, no adolescent refused to participate; however, one voiced discomfort about discussing HIV. When asked whether youth had questions for their mother about HIV, few did (e.g., “What does [HIV] feel like?”). Many noted that they felt comfortable going to their mother with these questions. Adolescents seemed open when discussing peer pressure; for example, they disclosed exposure to drugs and being asked to join gangs. Mothers were previously unaware of these situations.

Signs of Efficacy

Many outcomes shifted in the intended direction (Table 4). Effect sizes were larger for adolescent, compared to mother, report of outcomes. While some effects were small, others approached medium to large (disclosure self-efficacy, maternal HIV topics discussed, parental monitoring, and relationship quality). Only two effects were statistically significant ($p < .05$; adolescent report): increases in parental monitoring and relationship quality. In general, pre-post shifts in sex communication or responsiveness were minor or non-existent (mother report). When asked who would be the first person adolescents would go to if they had a question about sex, 50% said their mothers at baseline compared to 75% at post-intervention. When asked where they get most of their information about sex, 42% said their parents at baseline compared to 67% at post-intervention.

Qualitative Feedback

Audio-recorded feedback was summarized from questions asked following each session. Statements were offered regarding feeling comfortable in the group setting, appreciating members’ openness and honesty (“It didn’t seem like no one held back”), connecting with the facilitators, finding the material interesting and informative, learning ways to communicate with their child about HIV, enjoying the role-play exercises, and feeling well-supported by group members, even on topics such as rule-setting in which mothers expressed differing views.

Suggestions for improvement were also made. Mothers voiced a desire for more information about ways to discipline young adolescents and the role of corporal punishment. In addition, mothers wanted their adolescents present during the group portion of the program to learn communication skills, gain information about HIV, hear their experiences of living with HIV, and receive social support from other adolescents with an MLH. Finally, participants wanted more information on risk factors for early sexual debut.

All mothers gave positive feedback about their experience with communication exercises. One mother shared how the program was the impetus for her to be proactive in talking with her daughter about sexual risks. She said, “Before [Ms. Now] I was kind of nonchalant about it, just, ‘I’ll take care of it when it comes.’ But now, with things going on, it’s important to talk to kids... I’d rather her get it from me.” Despite some teens appearing uncomfortable,

many indicated that they enjoyed the exercises. An adolescent boy noted, “I am able to say what needs to be said and how I feel.” Most reported not typically having such discussions.

DISCUSSION

Ms. Now was adapted to hinder intergenerational transmission of HIV-related risks. Beyond finding high levels of program acceptability, promising trends in intervention effects were also found. Unlike PMP, Ms. Now had a significant effect on parent-child relationship quality. This is unsurprising given that Ms. Now incorporated new strategies aimed at repairing disrupted relationships. More so than other intervention targets, relationship quality should theoretically have a broader influence on problem behavior (Jessor & Jessor, 1977). Parental monitoring demonstrated an even larger effect. Ms. Now’s elicitation of mothers’ experiences with HIV may have prompted them to increase their monitoring. A third improvement with a medium effect size was mothers’ report of the number of topics related to her HIV status discussed with her child, which may have been mediated by an increase in mothers’ disclosure self-efficacy.

Unlike the PMP efficacy trial, positive shifts in communication about sex (breadth) and responsiveness were not observed. This may indicate ceiling effects. MLH reported high levels of communication and responsiveness at baseline; thus, there was less room for improvement. Overall, adolescents reported lower levels of responsiveness than MLH, suggesting that they continue to perceive their mothers as somewhat unapproachable. Often, this was reflected by youth saying their mothers would punish them if they had questions about sex.

One relatively major programmatic change is recommended for Ms. Now: greater adolescent involvement. Adolescents were excluded from the group portion of the intervention due to HIV-related privacy concerns and a desire to make communication exercises age-appropriate. While the latter concern could still be addressed via an individual family meeting, the first concern may not be as relevant as assumed. Indeed, MLH wanted their children to meet other adolescents. Incorporating an additional adolescent-only group meeting, perhaps run simultaneously and separate from a parent meeting, might accomplish these goals.

Although adaptation studies are necessarily smaller in scope, limitations of this approach should be noted. First, no control group was used, which precludes causal conclusions about the effects of Ms. Now. Second, the small sample size restricted our ability to detect smaller effects and may have been biased by extreme responses. Third, although compensation provided to participants was consistent with prior research with MLH and the time and costs demanded to participate, biased responding on satisfaction measures and inflated retention were possible. Fourth, due to the study’s small scale, outside observers were not used to evaluate engagement, potentially limiting rating objectivity. Fifth, we only assessed short-term outcomes; a longer follow-up is needed to determine whether intervention effects are maintained.

Ms. Now leveraged mothers' experiences of living with HIV to promote specific protective parenting, an advantage to this group not available to other parents. Ms. Now also aimed to address broader family risk factors such as rebuilding the parent-child relationship in trust and closeness. Although a larger randomized trial is required to confirm our findings, Ms. Now is a novel program that offers theory-driven prevention strategies tuned to the distinct needs and strengths of families affected by HIV. This approach itself is novel as policy in the U.S. has historically separated programs for adults living with HIV from those aimed for at-risk youth (Kotchick, Armistead, & Forehand, 2006). The development of programs jointly targeting MLH and adolescents may have even greater implications for countries most affected by the virus, including in sub-Saharan Africa, due to the centrality of family relations in this region (Rotheram-Borus, Flannery, Rice, & Lester, 2005).

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Table 1**Session Goals of Moms Stopping It Now!***Group Session 1 - Importance of Mothers*

- Provide participants with an overview of Ms. Now and build rapport
- Promote idea of mothers living with HIV (MLH) as advocates for adolescent sexual health
- Introduce participants to Pyramid of Success model of adolescent goal attainment
- Discuss pressures that adolescents face to engage in risk behaviors including the role of media
- Reflect on painful emotions mothers' experienced as an adolescent due to parent-child difficulties
- Provide and practice behavioral strategies for strengthening parent-child relationship quality
- Discuss disruptions in mother-adolescent relationship ("Big Breaks")
- Role-play communication strategies for repairing disruptions in mother-adolescent relationship
- Foster group social support through use of a Support Card
- Distribute homework: (1) practice communication skills; (2) implement parental monitoring

Group Session 2 - HIV and Motherhood

- Continue to build rapport through ice-breaker activities
- Identify and restructure maladaptive cognitions related to HIV and parenting
- Identify strengths of being a mothers living with HIV
- Introduce idea of continuing the mother-to-child HIV disclosure process
- Review pros and cons of continuing the disclosure process
- Conduct HIV knowledge game splitting participants into teams
- Role-play answering difficult questions about HIV status
- Identify safe person adolescents can turn to for HIV-related support
- Link mother-adolescent HIV communication to adolescent sexual education
- Watch video and identify teachable moments for communication about sex
- Prepare MLH for discussing sexual topics with their adolescents
- Distribute homework: (1) tell adolescent about safe person; (2) discuss topic related to mother's status

Group Session 3 - Mothers as Sex Educators

- Problem solve difficulties with homework completion
- Reflect on video about communication about sexual health
- Identify mothers' sexual values and barriers to communication about sex
- Review specific strategies for talking about sex with adolescents as an MLH
- Practice communication used during teachable moments related to sex education
- Role-play discussing difficult questions about personal experiences including those related to HIV
- Provide list of sexual topics that should be discussed
- Discuss timing of communication about sex
- Briefly review content from all three group sessions
- Celebrate completion of group portion of Ms. Now through graduation ceremony
- Distribute homework: (1) sexual values clarification; (2) identify sexual topics to discuss with adolescent

Session 4 Home Visit - Mother-Adolescent Communication Practice

- Explain program to adolescent
- Review mothers' sexual values and communication strategies
- Identify a non-"hot" topic to discuss with adolescent and conduct communication exercise

- Role-play with mother responses to adolescent peer pressure
 - Conduct mother-adolescent communication exercise about peer pressure
 - Provide opportunity to discuss maternal HIV infection with adolescent and mother
-

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Table 2

Average Satisfaction Ratings By Session Based on Session Evaluation Form

Item	Session <i>M</i> (<i>SD</i>)			
	1	2	3	4
Learned a lot	1.09 (.30)	1.22 (.44)	1.00 (.00)	1.17 (.39)
Able to apply	1.36 (.50)	1.22 (.44)	1.10 (.32)	1.08 (.29)
Given an opportunity to participate	1.09 (.30)	1.22 (.44)	1.00 (.00)	1.08 (.29)
Well organized	1.00 (.00)	1.22 (.44)	1.00 (.00)	1.08 (.29)
Interesting	1.09 (.30)	1.11 (.33)	1.00 (.00)	1.08 (.29)
Presenter stimulate my interest	1.18 (.40)	1.11 (.33)	1.00 (.00)	1.08 (.29)
Relevant	1.09 (.30)	1.22 (.44)	1.00 (.00)	1.08 (.29)
Enjoyable	1.09 (.30)	1.22 (.44)	1.00 (.00)	1.08 (.29)
Would recommend to others	1.18 (.40)	1.33 (.30)	1.00 (.00)	1.08 (.29)
Comfortable	1.18 (.40)	1.22 (.44)	1.00 (.00)	1.17 (.39)

Note: *N* = 11, 9, 10, and 11 for Sessions 1, 2, 3, and 4 (home visit), respectively.

1 = Strongly Agree; 2 = Agree; 3 = Disagree; 4 = Strongly Disagree.

Table 3**Participant Satisfaction Based on the Client Satisfaction Questionnaire**

Item	N (%)
How would rate the quality of the program?	
Excellent	10 (91%)
Good	1 (9%)
Fair	0 (0%)
Poor	0 (0%)
Did you get what you wanted from our program?	
Yes, definitely	9 (82%)
Yes, generally	1 (9%)
No, not really	1 (9%)
No, definitely	0 (0%)
To what extent has your program met your needs?	
Almost all of my needs have been met	7 (63%)
Most of my needs have been met	4 (37%)
Only a few of my needs have been met	0 (0%)
None of my needs have been met	0 (0%)
If a friend were in need of a similar help, would you recommend our program?	
Yes, definitely	10 (91%)
Yes, I think so	1 (9%)
No, I don't think so	0 (0%)
No, definitely	0 (0%)
Has our program helped you to deal more effectively with you or your child's problem?	
Yes, it helped a great deal	8 (73%)
Yes, it helped	3 (27%)
No, it didn't really help	0 (0%)
No, definitely	0 (0%)
In an overall general sense, how satisfied were you with our program?	
Very satisfied	10 (91%)
Mostly satisfied	1 (9%)
Indifferent or mildly dissatisfied	0 (0%)
Quite dissatisfied	0 (0%)
If you were to seek help again, would you come back to our program?	
Yes, definitely	10 (91%)
Yes, I think so	1 (9%)
No, I don't think so	0 (0%)
No, definitely	0 (0%)

Table 4

Pre-Post Comparisons (N = 12 dyads)

	Pre- <i>M</i> (<i>SD</i>) / Post- <i>M</i> (<i>SD</i>)	Pre- <i>M</i> (<i>SD</i>) / Post- <i>M</i> (<i>SD</i>)	<i>t</i>	<i>p</i> -value	Effect Size [*]
	Mother (M)	Adolescent (A)	M/A	M/A	M/A
<i>Outcome Variables</i>					
Communication about Sex (Breadth)	13.83(1.34) / 13.58(2.07)	11.08(3.65) / 11.42(3.50)	.51 / -1.48	.62 / .17	.14 / .09
Communication about Sex (Frequency)	23.08(5.50) / 23.58(6.02)	17.25(6.93) / 18.75(6.78)	-.37 / -1.61	.72 / .14	.09 / .22
Responsive to Sex Communication	32.17(3.51) / 32.00(4.63)	6.33(2.42) / 6.75(2.96)	.12 / -.66	.90 / .52	.04 / .15
General Communication	14.58(4.12) / 15.00 (3.44)	5.58(2.23) / 6.17(2.04)	-.56/-1.48	.59 / .13	.11 / .27
Relationship Quality	19.50(4.72) / 20.75(2.96)	9.75(2.80) / 10.83(2.33)	-1.34 / - 3.46	.21 / .01	.28 / .37
Parental Monitoring	8.75(2.83) / 10.00 (2.37)	5.42(1.73) / 9.92(2.15)	-1.92 / -9.00	.08 / <.01	.47 / 2.26
Maternal HIV Topics Discussed	4.75(1.22) / 5.33(.78)		-2.03 / --	.07 / --	.54 / --
Disclosure Self-Efficacy	36.00(7.03) / 38.50(2.03)		-1.23 / --	.25 / --	.38 / --

* Cohen's *d*, adjusted for correlated design (Dunlop, Cortina, Vaslow & Burke, 1996; www.psychometrica.de/effect_size.html)