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Abstract

Children exposed to domestic violence are at increased risk of becoming victims and perpetrators of dating abuse when they become teens. Despite this increased risk and the fact that approximately 15 million children are exposed to domestic violence yearly, there have been no evaluated dating abuse prevention programs conducted specifically with this population. The purposes of the proposed research were to 1) develop an intervention to prevent dating abuse in 12 to 15 year old teens exposed to domestic violence (Aim 1), and 2) conduct a small randomized trial to pilot test the procedures that would be used in a future large randomized efficacy trial of the program (Aim 2). In the course of addressing these aims, a unique way of recruiting teens exposed to domestic violence was piloted. Women were approached when they were in courts filing for a Domestic Violence Protective Order (DVPO) to recruit them and their 12 to 15 year old teens into the study. Both aims and the pilot of the recruitment approach were successfully accomplished. Mid-way through the conduct of this pilot study, the large randomized efficacy trial of the program that was developed for Aim 1, *Moms and Teens for Safe Dates*, was funded by the CDC. The findings of this NIJ pilot study have been invaluable for informing the conduct of the randomized efficacy trial.

To address Aim 1, formative research was conducted to adapt an evidenced-based family program for preventing teen dating abuse, *Families for Safe Dates (FSD)*, for this highly vulnerable population of youth. *FSD* consisted of six booklets of information and interactive activities mailed to study families for them to do in homes at times convenient for them, followed by health educator telephone calls two weeks after each mailing. After an initial adaptation of the booklets, 28 women who had been victims of domestic violence—but who no longer lived with the abuser—and their 12 to 15 year old teens (n = 35) participated in a series of

focus groups and interviews to provide feedback on the adapted booklets. Booklets were revised and finalized based on this feedback. In this technical report we describe 1) the theoretical and conceptual framework of *Moms and Teens for Safe Dates*, 2) results from the formative research, called the *Program Adaptation Study*, including presentation of 10 themes identified from the focus groups and interviews that may be useful for others intervening to prevent dating abuse among teens exposed to domestic violence, and 3) results from piloting the recruitment procedures.

To address Aim 2, we conducted a small randomized trial mimicking procedures to be used in the large efficacy trial with 51 mothers and their teens. Mothers and teens each completed a baseline telephone interview. Families were then randomly allocated to study condition. Mothers and teens completed a follow-up telephone interview one month after treatment families completed the program. In this technical report we present lessons learned from this pilot related to recruitment, administration of the program, data collection procedures, and measures that will inform the methods of the randomized efficacy trial. We also present findings from the baseline questionnaire to characterize aspect of the teens' exposure to domestic violence, describe the prevalence of multiple types of dating abuse victimization and perpetration among these teens, as well as the prevalence of bullying, sexual harassment and peer aggression victimization and perpetration, and present associations between various characteristics of exposure to domestic violence (e.g. length of exposure, type of perpetrator, severity of the abuse) and teen dating abuse. Low follow-up rates and booklet completion precluded examination of trends in program effects.

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Executive Summary

Synopsis of the Problem: Children exposed to domestic violence are at increased risk of becoming victims and perpetrators of dating abuse when they become teens. Dating abuse includes actions that are psychologically, physically, and sexually abusive. Despite this increased risk and the fact that approximately 15 million children are exposed to domestic violence yearly, there have been no evaluated dating abuse prevention programs conducted specifically with this population.

Study Purposes: The purposes of the proposed research were to 1) develop an intervention to prevent dating abuse in 12 to 15 year old teens exposed to domestic violence (Aim 1), and 2) conduct a small randomized trial to pilot test the procedures that would be used in a future large randomized efficacy trial of the program (Aim 2). In the course of addressing these aims, a unique way of recruiting teens exposed to domestic violence was piloted. Women were approached when they were in courts filing for a Domestic Violence Protective Order (DVPO) to recruit them and their 12 to 15 year old teens into the study. Both aims and the pilot of the recruitment approach were successfully accomplished. Mid-way through the conduct of this pilot study, the large randomized efficacy trial of the program that was developed for Aim 1, *Moms and Teens for Safe Dates*, was funded by the CDC. The findings of this NIJ pilot study have been invaluable for informing the conduct of the randomized efficacy trial.

Methods for Addressing Aim 1: Aim 1 was addressed through the conduct of the *Program Adaptation Study*. Through this study we adapted an evidenced-based family program for preventing teen dating abuse, *Families for Safe Dates (FSD)*, for this highly vulnerable population of youth. *FSD* consisted of six booklets of information and interactive activities mailed to study families for them to do in homes at times convenient for them, followed by

health educator telephone calls two weeks after each mailing. We did an initial adaptation of the booklets to be appropriate for mother victims of domestic violence—who no longer lived with the abuser—to do with her 12 to 15 year old teens. Then 28 women who had been victims of domestic violence and their 12 to 15 year old teens (n = 35), recruited in two North Carolina counties, participated in a series of focus groups and interviews to provide feedback on the adapted booklets. Mothers and teens completed two booklets together in their homes then participated in a focus group (with mothers and teens separated) or an interview (conducted separately with mothers and teens) to provide feedback on those booklets. This process was repeated until the family completed all six booklets and participated in three focus groups or interviews.

Results from the *Program Adaptation Study*: Initially families were recruited into the *Program Adaptation Study* using the method described above of approaching women with 12-15 year old teens in courts as they were filing for a DVPO. After 4 months, this in-person courtroom recruitment approach was discontinued because: 1) there were very few women with 12 to 15 year olds who filed for a DVPO in these two courts in the 4 month recruitment period (n = 26); 2) although interest in the study among these women was high (73% of eligible women indicated wanting to receive a follow-up telephone call about the study and 80% of those women enrolled in the study), a very low percentage of eligible women (27%) actually came to one of the focus groups or completed a telephone interview; and 3) these recruitment efforts were very expensive for the number of eligible women identified; approximately 27 hours of recruiter time was required to identify each eligible women, not counting the time for conducting the follow-up recruitment telephone call or conducting the focus groups and interviews. Thus, it was concluded that this recruitment approach would not be feasible for the pilot or actual randomized trial.

Recruitment efforts were changed to involve a variety of ways of advertising the study throughout the two study counties (e.g. posting of flyers, distribution of three-fold study pamphlets, emailing flyers to appropriate listserves serving victims of domestic violence).

The information obtained from the focus groups and interviews was invaluable for developing *Moms and Teens for Safe Dates*. The feedback guided revisions to the interactive activities and instructions and booklet organization and formatting and suggested that content addressing new constructs should be added. Booklets were revised and finalized based on this feedback and the theoretical and conceptual framework guiding the program was finalized. Additionally, the following 10 themes were identified from the focus groups and interviews that may be useful for others developing similar types of programs:

- Theme 1- Mothers lacked basic teen dating abuse knowledge, requiring more basic information than initially anticipated be added to the booklets.
- Theme 2- Mothers had a strong desire for a heavy focus on psychological abuse in the booklets.
- Theme 3- Many of the teens appeared to be angry and thus more booklet activities were needed for teaching them anger management and conflict resolution skills.
- Theme 4- Two extremes in mother-teen relationships were identified. One type was a very close relationship between the mother and teen often attributed to the closeness that formed between the mother and her teen as a result of the domestic violence experience. In the other type, communication between the mother and teen was extremely poor and sometimes resulted in explosive conversations. For this group, activities that were not problematic in our FSD program for the general population were contentious and thus

were eliminated and replaced with other types of activities that were better at promoting communication while diffusing potentially contentious issues.

- Theme 5- Mothers were overly strict about dating and that tendency and the potential negative consequences of that strictness were described to the first booklet, which was for mothers only.
- Theme 6- Mothers and teens liked the booklet structure and found it convenient.
- Theme 7- Mothers and teens liked having a structure for communicating with each other.
- Theme 8- Families liked having a structure for spending time together.
- Theme 9- Mothers liked having control over how much they talked to their teen about their own abuse and the booklets were designed so that the mothers had that control.
- Theme 10- The mothers appreciated being offered the program.

Methods for Addressing Aim 2: To address Aim 2, we conducted the *Pilot Randomized Trial* mimicking procedures to be used in the large efficacy trial with 51 mothers and their teens who were recruited through the community recruitment methods described above. Forty-four percent of the mothers were African American, 38% were White and 18% were of other race/ethnicities. The average age of the mothers was 38.3 years with ages ranging from 28 to 54. Sixty percent of the mothers had education beyond high school and 60% were unemployed. Sixty-eight percent of the mothers were single. More female (76%) than male (24%) teens participated in the study. Their average age was 13.7 years.

Mothers and teens each completed a baseline telephone interview. After completing the baseline interview, sets of three families were matched on the time of completion of the baseline interview and randomly allocated to one of three groups. Group 1 received both the booklets and the health educator call; Group 2 received only the booklets; and Group 3 was the control group

that received no materials. We had the two different treatment groups so that we could determine if the health educator calls were necessary for motivating families to complete booklets. The reason this was important to determine is that agencies delivering *Moms and Teens for Safe Dates* in the future, if it is found to be efficacious, would likely find it manageable to distribute booklets to clients but conducting the health educator telephone calls would add an expense that agencies typically could not incur. Thus, program participation (i.e. booklet completion) was compared for Group 1 and 2 to determine if the health educator calls should be part of the program that will be evaluated in the large randomized efficacy trial. Mothers and teens completed a follow-up telephone interview one month after treatment families completed the program.

Results from the *Pilot Randomized Trial*: This pilot was a success in that many lessons were learned related to recruitment, administration of the program, data collection procedures, and measures that will inform the methods of the randomized efficacy trial. As examples, the pilot informed changes to the recruitment procedures, screening script, tracing methods, and the methods for documenting program fidelity, highlighted the need to provide incentives for booklet completion, informed revisions to the mother and teen questionnaires, and informed our decision to eliminate the health educator calls from the program that is being evaluated in the randomized efficacy trial.

Additionally, we conducted analyses on the baseline sample of 51 mothers and teens. Some of the things we learned from these analyses are that:

- 68% of the teens report having ever dated
- The teens had significant exposure to domestic violence; the average exposure was for 6.9 years with the maximum exposure being for 15 years; eighty percent had witnessed

domestic violence of the mother from the biological father and, for most of those teens (67%), the domestic violence of the mother was present when the child was born; seventy-six percent of the mothers were abused by more than one partner; and the mothers reported experiencing substantial chronic psychological, physical, and sexual abuse. It can be concluded that the recruitment approaches used resulted in a sample of teens that had high exposure to domestic violence.

- The prevalence of teen dating abuse victimization and perpetration is very high; 50% experienced psychological abuse, 28% experienced physical abuse, 36% experienced sexual abuse, and 36% experienced cyber abuse (which is the use of electronic technologies to psychologically abuse dates). The prevalence of dating abuse victimization is substantially higher in this study than in national studies of dating abuse victimization which report from 9-12% experiencing physical dating abuse and 28.5% experiencing psychological dating abuse. There are no national studies of dating abuse perpetration with which to compare prevalences. But reports of all four types of dating abuse perpetration are very high (psychological 38%; physical 16%; sexual 18%; and cyber 32%).
- The prevalence of bullying, sexual harassment, and peer aggression also are high; 84% have been bullied and 72% have bullied others; 62% have been sexually harassed and 20% have sexually harassed others; and 50% have been a victim of aggression from non-dating peers and 52% have been aggressive to non-dating peers.

In the baseline data, we also examined correlations between various characteristics of exposure to domestic violence (e.g. length of exposure, type of perpetrator, severity of the

abuse) and teen dating abuse. But none of the correlations were statistically significant, likely because of the small sample size.

Unfortunately we were not able to examine trends in program effects for the following reasons. There was a low follow-up rate (62% for mothers and 58% for teens) that resulted in too few subjects in each group to make any meaningful comparisons; there were 12 families in Group 1, 7 families in Group 2, and 13 families in Group 3 who completed follow-up questionnaires. There also was low booklet completion. Of the families in Groups 1 and 2 combined, we estimate that about 6 completed all of the booklets. And because the one-month follow-up questionnaire assessed dating abuse in the previous month, there was too little dating abuse that occurred between baseline and the follow-up in any group to assess program effects. Low alphas for some constructs further hampered assessments of program effects.

Implications for Policy and Practice: This study is innovative in that it laid the groundwork for the first randomized efficacy trial of a program for preventing dating abuse designed specifically for teens exposed to domestic violence. This study contributed greatly to the methodological rigor, data quality, and potential success of the large efficacy trial. There is a serious need for effective programs for preventing teens who have been exposed to domestic violence from being victims and perpetrators of dating abuse. Because of the large number of teens exposed to domestic violence and the high-risk status of those teens, dissemination of such a program could make a substantial impact on breaking the cycle of family violence that leads to so many of our public health and societal problems. Also, preventing dating abuse has implications for the health care system because victims of dating abuse suffer many consequences, such as physical injury, substance abuse, eating disorders, depression and suicidal behaviors that require medical attention. Furthermore, many working in the court system recognize the need for such programs

because teens exposed to domestic violence often end up in Juvenile Court. If *Mothers and Teens for Safe Dates* is found to be effective in the randomized efficacy trial, given its structure, its dissemination could be facilitated through the justice system in collaboration with other related agencies.

Chapter 1: Introduction

Children who have been exposed to domestic violence are at increased risk of becoming victims and perpetrators of dating abuse when they become teens (Chapple, 2003; Ehrensaft, Cohen, Brown, Smailes, Chen, & Johnson, 2003; Foshee, Bauman, & Linder, 1999; Magdol, Moffitt, Caspi, & Silva, 1998; Malik, Sorenson, & Aneshensel, 1997; O'Donnell, Stueve, Myint, Duran, Agronick, & Wilson-Simmons, 2006; O'Keefe 1997; O'Keefe, Brockopp, & Chew, 1986). Dating abuse includes actions that are psychologically, physically, and sexually abusive. Despite this increased risk and the fact that approximately 15 million children are exposed to domestic violence yearly (McDonald, Jouriles, Ramisetty-Mikler, Caetano, & Green, 2006), there have been no evaluated dating abuse prevention programs conducted specifically with this population. One likely reason for this gap is the difficulties of identifying and recruiting teens exposed to domestic violence into evaluation trials. As examples, recruiting teens exposed to domestic violence through schools could be stigmatizing and recruiting through domestic violence shelters could be problematic because mothers usually have younger children, not teens, with them and the stay at shelters is often too short for delivering a dating abuse prevention program. Another likely reason for the gap is the difficulty in tracing such high risk teens over time because of family disruptions due to the domestic violence; the ability to trace over time is essential for evaluation research.

On October 1, 2008 we received funding from the National Institutes of Justice (NIJ) for a two-year study to 1) develop an intervention to prevent dating abuse victimization and perpetration in teens exposed to domestic violence (Aim 1), and 2) conduct a small randomized trial to pilot the procedures that would be used in a future larger randomized efficacy trial of the program. In the process of accomplishing these aims, we also proposed to pilot the feasibility of

a unique recruitment approach that, if successful, could be used in a future randomized efficacy trial of the program that was developed. This technical report presents the results from two studies that were conducted to address the study aims: 1) the *Program Adaptation Study* which involved formative research to develop the program and to pilot the unique recruitment strategy, and 2) the *Pilot Randomized Trial* which mimicked the procedures that would be considered for an actual randomized efficacy trial of the program in order to pilot the methodology and inform procedures for that future study.

This chapter describes the approach we used to develop the program, the unique recruitment approach that was piloted, and the specific purposes of the *Pilot Randomized Trial*. Chapter 2 presents the methods, results and discussion of results for the *Program Adaptation Study* and Chapter 3 presents the methods, results and discussion of results for the *Pilot Randomized Trial* because these are actually two completely different studies with very different methodologies. In October 2010, while conducting this NIJ-funded pilot study, we received funding from the Centers for Disease Control and Prevention (CDC) to conduct the full randomized efficacy trial of the program that was developed and piloted through this NIJ funding. These NIJ-funded pilot studies were invaluable for planning the methods for the CDC-funded randomized efficacy trial.

Approach to Developing the Program

The approach we used to develop the program was to adapt a theoretically-based universal family-based dating abuse prevention program that we had previously developed and evaluated, called *Families for Safe Dates*, to this unique selective population of teens who have been exposed to domestic violence. *Families for Safe Dates* is a family-based program for preventing teen dating abuse victimization and perpetration. The program consists of six booklets delivered to families by mail; the first booklet, *Getting Started* is for caregivers only and the other five

booklets include information and interactive activities, designed to alter risk factors for teen dating abuse, for caregivers and teens to do together. Booklets are completed in the home at times convenient for the family. A health educator calls the caregiver two weeks after each booklet is mailed to confirm that the booklet was received, determine whether the booklet was read and the activities completed, encourage family participation, answer questions, and assess caregiver satisfaction and other reactions to the booklet. This structure was modeled after our earlier program, *Family Matters*, which used the same booklet and health educator telephone call format to intervene with parents to prevent teen alcohol and tobacco use (Bauman, Ennett, Foshee, Pemberton, King, & Koch, 2002; Bauman, Foshee, Ennett, Hicks, & Pemberton, 2001).

We chose to adapt *Families for Safe Dates* to this population of teens exposed to domestic violence rather than to create a program de nova because: 1) results from a national randomized trial of the program demonstrated positive program effects on several of the theoretical constructs that were targeted for change in the program, with effect sizes ranging from .25 to .44, and on dating abuse victimization (OR = 3.84) (Foshee, Reyes, Ennett, Cance, Bauman, & Bowling, in press), 2) the theoretical and conceptual framework of that program was also relevant for the targeted population in the current study, and thus the program content was expected to be relevant for the current target population, 3) the program structure is very convenient for busy families, and 4) there was high family program participation in the randomized efficacy trials of both the *Families for Safe Dates* and *Family Matters* programs (Bauman et al., 2001; Foshee et al., in press). For the adaptation, we designed the program for mothers who had left an abusive partner to do with her teen. We called the program *Moms and Teens for Safe Dates*.

***Moms and Teens for Safe Dates* theoretical and conceptual framework**

The overall goal of *Moms and Teens for Safe Dates* is to motivate and facilitate mother engagement in dating abuse prevention activities with her teen that can lead to decreases in risk factors for teen dating abuse that then lead to decreases in dating abuse victimization and perpetration. Thus, *Moms and Teens for Safe Dates* is designed to change two categories of constructs: 1) factors that motivate and facilitate mother engagement in dating abuse prevention activities with her teen, and 2) empirically and theoretically-based risk factors for teen dating abuse.

Factors motivating and facilitating mother engagement in teen dating abuse prevention activities. *Moms and Teens for Safe Dates* is consistent with a social ecological approach in that the practitioner does not intervene directly with teens, but instead intervenes with mothers to promote changes in the family context that lead to teen dating abuse prevention (Bronfenbrenner, 1979). Because mothers are the change agents, motivating them to deliver intervention content to their teen and have continuing discussions with them about dating abuse is imperative. According to Protection Motivation Theory (Rogers, 1983) four beliefs are needed to motivate mothers to take a preventive action such as talking to their teens about dating abuse: The first belief mothers must have is that their teen is vulnerable to becoming involved in dating abuse (*perceived susceptibility*). Second, is that negative consequences could accrue to them and their teen if the teen becomes involved in dating abuse (*perceived severity*). Third, is that they have the potential to influence their teen's dating abuse behavior (*response efficacy*). Finally, mothers need to feel confident that they have the skills for talking to their teen about dating abuse (*self-efficacy*). Thus, booklets include content and activities designed to alter all four of these Protection Motivation Theory constructs.

Mothers and Teens for Safe Dates is also intended to increase *mother knowledge of dating abuse* and to improve *mother skills for communicating with her teen* because parental lack of knowledge and poor communication skills are common barriers to parent-teen communication about sensitive topics (Jackard, Dodge, Dittus, 2002; Wurtele, Kvaternick, & Franklin, 1992). Additionally booklets are designed to decrease *mother acceptance of dating abuse* and increase *mother belief in the importance of being involved in her teen's dating*. Altering each of these constructs is expected to enhance mother motivation to complete the program and to create a family context that is conducive to further discussion of teen dating abuse prevention once the program is over.

Targeted risk factors for dating abuse. The *Moms and Teens for Safe Dates* activities that mothers do with their teens are designed to alter targeted risk factors for teen dating abuse. In one of our earlier papers we examined factors that mediated the association between exposure to domestic violence and teen dating abuse perpetration in a sample of 1,965 teens in the eighth and ninth grades (Foshee, Bauman, & Linder, 1999). We examined mediators based on Bandura's social learning theory (Bandura, 1977) and Hirschi's control theory (Hirschi, 1969). We found that the social-learning-theory-derived variables of acceptance of dating abuse, outcome expectations, and aggressive conflict resolution style explained the relationship between exposure to domestic violence and dating abuse. In other words, teens who had been exposed to domestic violence were more accepting of dating abuse, perceived fewer negative consequences from dating abuse, and demonstrated poorer skills in response to conflict than those who had not been exposed to domestic violence, and these variables, in turn, predicted perpetration of dating abuse. Teen attitudes about the acceptability of dating abuse and perceived consequences of dating abuse have been repeatedly associated with dating abuse and date rape (Foshee, Bauman

& Linder 1999; Foshee, Linder, MacDougall, & Bangdiwala, 2001; Malik, Sorenson, & Aneshensel, 1997). Poor conflict resolution skills also have been associated with dating abuse (Bird, Stith, & Schladale 1991; Foshee, Benefield, Ennett et al., 2004; Lloyd, Koval, & Cate, 1989). Therefore, *Moms and Teens for Safe Dates* includes activities that mothers and teens do together to decrease *teen acceptance of dating abuse*, increase *teen perceived negative consequences of dating abuse*, and improve *teen conflict resolution skills*. Although gender stereotyping has not been examined as a process through which domestic violence influences teen dating abuse, numerous studies have found that gender-based expectations are associated with dating abuse (Burke, Stets, & Pirog-Good, 1988; Stets & Pirog-Good, 1987), spouse abuse (Briere, 1987; Finn, 1986), and rape (Burt, 1980; Check & Malamuth, 1983; Koss, Leonard, Beazley, & Oros, 1985). Thus, the program also includes activities designed to alter *teen gender stereotyping*. Norms regarding the use of violence and gender-roles and conflict resolution skills also were targeted for change in the *Youth Relationship Project*, an evidenced-based dating abuse prevention program targeted specifically at abused youth, many of which had also witnessed domestic violence (Wolfe, Wekerle, Scott, Straatman, Grasley, & Reitzel-Jaffe (2003). And finally, parental monitoring and rule setting are among the most consistent predictors of teen dating abuse in longitudinal research (Brendgen, Vitaro, Tremblay, et al., 2001; Capaldi & Clark, 2002; Lavoie, Hebert, Tremblay, et al., 2002) and therefore the program includes activities for increasing *mother date rule-setting and monitoring*. Changes in each of these risk factors are expected to prevent psychological, physical, sexual, and cyber (psychological abuse that occurs through electronic devices and mechanisms) dating abuse victimization and perpetration.

Adapting the Booklets

Our first step in the adaptation was to modify the *Families for Safe Dates* booklet content based on knowledge of this population and some of the theoretical considerations noted above specific to this target population. We then conducted the *Program Adaptation Study*, the results of which are presented in Chapter 2. For that study we recruited female victims of domestic violence-- who no longer lived with the partner-- and their 12 to 15 year old teens to complete the program booklets and to participate in a series of focus groups (later changed to interviews) to get their feedback on the structure of the program, the content of each booklet, and the program as a whole. The program was revised based on that feedback. Although information was obtained that helped to revise specific booklet activities and content, several themes are presented in Chapter 2 that emerged from these data that could be useful for others intervening to prevent dating abuse among teens exposed to domestic violence.

Piloted Recruitment Approach

We piloted the feasibility of approaching mothers of teens in courts as they were filing for a Domestic Violence Protective Order (DVPO) and recruiting them and their 12 to 15 year old into the *Program Adaptation Study*. If this recruitment approach was successful in the *Program Adaptation Study*, it would be used in the *Pilot Randomized Trial*.

A DVPO is a way of legally restraining a domestic violence perpetrator from future abuse against his or her partner. Conditions of protection orders are established by the judges who issue them and may include a ban on visits to the home of the victim, prohibition of any phone, email or other contact, award of temporary custody of minor children and the mandate of batterer treatment or other counseling. In North Carolina, women interested in obtaining a DVPO, initially file for a temporary protection order (referred to as an *ex parte*). This temporary order is

in effect until the mandatory hearing, typically 10-14 days after filing for the *ex parte* at which time the judge decides whether to grant a protection order (DVPO), which goes into effect for a specific amount of time, usually one year.

There are several potential advantages of this recruitment strategy. One is that teens of mothers seeking DVPOs have had significant exposure to domestic abuse. Also, a woman filing for a DVPO has made a strong commitment to leave the abusing partner and if the DVPO is granted, the mother is protected from the abusive partner for a year. Thus, the mother could deliver a dating abuse prevention program to her teen without the abuser being present. In addition, participating in efforts to prevent their teens from becoming involved in dating abuse may be particularly salient for these women at this time. Because these mothers have already sought assistance for themselves and their children through filing for a protective order, the mothers may be motivated to break the cycle of family violence by participating in a study on the prevention of teen dating abuse.

The primary disadvantage of this recruitment procedure is that the time right after receiving a DVPO may be too tumultuous and dangerous for a mother and the teen to be in a teen dating abuse prevention study and for the mother to deliver a program to her teen. Women seeking DVPOs have typically experienced severe forms of domestic violence that may make it difficult for the woman to participate in a study, yet their teens may be at the highest risk for becoming a perpetrator or victim of dating abuse and in the greatest need for a prevention program. The feasibility of this recruitment approach was tested in the *Program Adaptation Study*.

The Pilot Randomized Trail

Aim 2 was to conduct a small randomized trial to pilot test the procedures that would be used in a future larger randomized efficacy trial of *Moms and Teens for Safe Dates*. The *Pilot Randomized Trial* involved the conduct of a pre-test post-test control group experimental design. The specific purposes of the *Pilot Randomized Trial* were to 1) assess the feasibility of recruiting mothers who obtain a DVPO and their teens into a teen dating abuse prevention trial; 2) pilot baseline and follow up telephone interview procedures; 3) examine the psychometric properties of scales; 4) obtain expected participation rates and expected follow-up rates for both treatment and control families; 5) assess the receptivity of mothers and teens to the intervention; 6) pilot all study protocols and procedures; and 7) assess preliminary trends in program effects.

In addition to the above purposes, we specifically wanted to determine if the health educator calls were or were not essential for family completion of the booklets. If efficacious in the large randomized efficacy trial, *Moms and Teens for Safe Dates* would be disseminated through agencies that interact with mother victims of domestic violence and children who have been exposed to domestic violence. Whereas giving the booklets to clients is easily manageable for such agencies, conducting the health educator telephone calls adds an expense that agencies typically could not incur. Thus, for the *Pilot Randomized Trial*, after completing baseline questionnaires, mothers and teens were randomized into one of three groups: those randomly allocated to Group 1 received the program booklets and received the health educator calls; those allocated to Group 2 received the booklets only and no health educator calls; and those allocated to Group 3 did not receive any intervention (Control Group). Program participation (i.e. booklet completion) was compared for Group 1 and 2 to determine if the health educator calls should be part of the program that will be evaluated in the large randomized efficacy trial.

Chapter 2: The *Program Adaptation Study*

Methods

Families were recruited into the *Program Adaptation Study* during a seven-month period, beginning February 2009 through August 2009. To be eligible to participate, the mother had to have been in an abusive relationship and currently living apart from the abusive partner, and have a teen between 12 and 15 years old. Also, both the mother and teen had to speak English because the budget did not support adapting the program and data collection instruments to other cultures and languages. All procedures were approved by the University of North Carolina IRB and the appropriate NIJ offices related to the protection of human subjects.

Recruitment of Women Seeking DVPOs

The strategies used to recruit women seeking DVPOs into the *Program Adaptation Study* were implemented in two North Carolina courts. Informational study fliers were attached to the *ex parte* paperwork in the Clerks of Court offices. Each week between February 2009 and May, 2009, study staff received the dockets for domestic violence court for the following week and, if available, copies of the Victim Information Sheets (VIS), which are completed by women when filing for an *ex parte*. The VIS includes the ages of the woman's children. Recruiters attended the domestic violence court sessions each day they were held. After the hearing, the recruiter approached each woman with a teen of eligible age as determined by either the VIS or from information heard during the hearing. Women for whom the age of their children could not be determined from either source also were approached. When approached, eligibility was determined, information about the study was presented, and permission for study staff to call them to discuss the study in more detail was requested.

In the follow-up telephone call, the study was described in detail and a study fact sheet that included all required elements of informed consent was read. Women who were eligible and interested gave verbal consent for their own and their teen's participation in the study. Women who had multiple teens between 12 and 15 could enroll all eligible teens. Arrangements were made to mail the mother the first two program booklets and the first focus groups (or interviews) with mothers and teens were scheduled approximately two weeks from that date.

Data Collection Methods

Initially mothers and teens participated in a series of three 1½ hour-long bi-weekly focus groups to provide feedback on drafts of the *Moms and Teens for Safe Dates* booklets. Mothers and teens completed two booklets together in their homes then participated in a focus group to provide feedback. This process was repeated until the family completed all six booklets and participated in three focus groups. Separate focus groups were conducted with mothers and teens. All focus groups were audio taped and staffed by one focus group leader and an assistant who took notes and handled the logistics of the meetings. Reminder telephone calls were placed one week prior and two days prior to the scheduled focus groups to answer questions and confirm the scheduled focus groups. Mothers and teens received \$10 each for each focus group completed. Childcare was provided on site during the focus groups and the women received an extra \$3 to help cover transportation costs.

At the beginning of the first focus group, mothers and teens read and signed consent/assent forms and completed a demographics questionnaire, and a pledge of confidentiality was read and signed by mothers and teens. The focus group guides included open-ended questions about each section and activity in the booklets and solicited feedback on 1) the organization, layout, and formatting of the program, clarity of program activity instructions,

likeability of each program activity, and overall impressions of the program; 2) barriers to completing the program; 3) content that was not appropriate for mothers and teens who had been exposed to domestic violence; 4) time demands on the family; and 5) content that should be added.

As described in more detail in the Results section, because of the difficulties women had in coming to focus group meetings, three months after we began recruiting women into the study, the data collection method was changed from conducting focus groups to conducting telephone interviews, separately, with the mother and the teen. During the telephone interviews, verbal consent and assent were obtained from the mother and teen, respectively, and the demographics questionnaire and focus group guides were administered. This method of data collection was viewed as more convenient for the families.

Data Analysis

The focus group and telephone interview audiotapes were transcribed verbatim. Transcripts were analyzed by two coders to identify themes indicating changes that needed to be made to the booklets and that indicated important considerations for future development of dating abuse prevention programs for teens exposed to domestic violence.

Results

Recruitment of Women Filing for a DVPO

During the four-month courtroom recruitment period, 1,200 women sought DVPOS but only 26 of them were determined to be eligible for the study; the primary limiting factor was having a 12 to 15 year old teen. Of these 26 women, 19 agreed to be called about the study. The other seven reported being too busy or getting ready to leave town as the main reasons for not wanting to be called to learn more about the study. Of the 19 women who received the follow-up

telephone call, 15 enrolled in the study and were sent the first two booklets and were scheduled for a focus group (or telephone interview). Of these 15 women, only seven attended at least one focus group or completed at least one telephone interview even though all indicated on a reminder call the previous day that they would be at the focus group (or be available for the scheduled telephone interview).

After 4 months, this in-person courtroom recruitment approach was discontinued because: 1) there were very few women with 12 to 15 year olds who filed for a DVPO in these two courts in the 4 month recruitment period (n = 26); 2) although interest in the study among these women was high (73% of eligible women indicated wanting to receive the follow-up telephone call about the study and 80% of those women enrolled in the study), a very low percentage of eligible women (27%) actually came to one of the focus groups or completed a telephone interview; and 3) these recruitment efforts were very expensive for the number of eligible women identified; approximately 27 hours of recruiter time was required to identify each eligible woman, not counting the time for conducting the follow-up recruitment telephone call or conducting the focus groups and interviews.

After discontinuing the in-person courtroom recruitment efforts, we attempted to recruit women seeking DVPOs by calling women who indicated on a VIS having a teen of eligible age. Of the women with teens of the targeted age, recruiters were only able to reach five by telephone. All five women enrolled in the study, but none participated in a focus group or interview.

Revised Recruitment Strategy

Recruitment efforts had to be expanded beyond the efforts to recruit women seeking DVPOs. Recruitment efforts were expanded to two additional counties and included

dissemination of three-fold pamphlets and fliers about the study at victim service agencies, departments of social services, health departments, mental health agencies, and other public locations, and fliers were posted on courthouse bulletin boards and in bathroom stalls throughout the courthouses. The fliers advertised for women who had been prior victims of domestic violence but who no longer lived with the abuser and who had a 12 to 15 year old teen.

A total of 36 mothers who met these criteria called the study office to receive more information about the study; 32 of these women enrolled into the study (i.e., gave consent to participate, received the first two booklets via mail, and were scheduled for their first focus group/interview). Twenty-one of these 32 participated in focus groups or completed telephone interviews.

Themes Informing Program Development

In all, twelve focus groups and 107 telephone interviews were conducted with the 28 mothers and 35 teens who participated in the *Program Adaptation Study*. The mothers were between 28 and 56 years old. Sixty-four percent were African American, 25% were white, 7% were Hispanic, and 4% were Japanese/West Indian; twenty-five percent had a high school degree or less, 29% had some college, and 46% graduated from college; and 32% were single and never married, 32% were divorced, and 36% were re-married. Of the teens, 71% were girls and 29% were boys.

Detailed information was provided by the mothers and teens on how to improve each program activity. Additionally, ten themes were identified from these data that influenced revisions to *Moms and Teens for Safe Dates* and that others should consider when developing similar types of programs (Table 2.1). Each of these themes is described below.

Theme 1- Mother lacked basic teen dating abuse knowledge. We had erroneously assumed that because of their experiences, these women would be very knowledgeable about teen dating abuse and teen dating abuse dynamics. We believed that these mothers, who had been abused themselves, would already have a high amount of knowledge of dating abuse, be aware of the negative consequences that could accrue to their teen from dating abuse, and believe that their teens were at high risk of dating abuse. Therefore, in the initial modification of the *Families for Safe Dates* booklets to create *Moms and Teens for Safe Dates*, we eliminated much of the content from the *Getting Started* booklet intended to change those constructs. However, we found that the mothers were surprised that abuse could begin as early as adolescence; they perceived it as an adult issue. As one mother noted, “*Well to be honest, I didn’t really think about the next generation as far as our kids going through you know the abuse.*” Another stated “*I didn’t know teenagers got raped.*” This mother thought that rape didn’t occur until after graduating from high school and being out in the world. It is possible that these women had focused so long on what they were dealing with and in trying to get out of their abusive relationship, that they had not fully considered the impact of the abuse on their teen’s dating experiences. As a result, we added more information to the booklets to increase the knowledge base of these women that we had mistakenly presumed would be particularly high.

Theme 2- Mothers had a strong desire for a heavy focus on psychological abuse. The booklets that the women reviewed included many references to psychological abuse, but they wanted even more. They were adamant about ensuring that their teens recognized psychological abuse and see it as a warning sign of or precursor to physical violence. Many stated that their abuse started with psychological abuse, and they said they were naive about it and did not realize what was happening to them. In addition, the woman noted that the psychological abuse was

devastating in and of itself. Therefore we gave psychological abuse even more prominence in the booklets through providing more definitions, stressing the negative consequences of psychological abuse and incorporating it into more of the scenarios and activities discussed with the teens.

Theme 3- Many of the teens were very angry. Many more of these teens than the general population teens in the *Families for Safe Dates* focus groups appeared to be angry. Many studies have found that children who witness domestic violence between their parents often grow into teens and young adults with higher levels of internalized and/or externalized anger than children who have not witnessed domestic violence, both toward parents (Adams, 2006) and overall (Adams, 2006; Hoglund & Nicholas, 1995; Nicholas & Rasmussen, 2006; Turcotte-Seabury, 2010; Wolf & Foshee, 2003). Wolfe and colleagues (2003) found that the maltreated youth, many of which had also witnessed domestic violence, participating in the randomized trial of the *Youth Relationship Project*, scored very high on interpersonal hostility, and that the intervention was effective in decreasing hostility among those high-risk youth. More activities for teaching teens how to manage their anger and how to prevent anger from leading to dating abuse were added to the booklets.

Theme 4- Two extremes in mother-teen relationships. We observed two diametrically opposed types of mother-teen relationships and communication that needed to be considered in programming. One type was a very close relationship between the mother and teen with exceptionally good communication that was often attributed by the mother to the closeness that formed between her and her teen as a result of the domestic violence experience. In the other type, communication between the mother and teen was extremely poor and sometimes resulted in explosive conversations. The types of communicating that these teens said that their mothers

used that made them angry and put them on the defensive included judging the teen unfairly, being judgmental of the teen's activities and friends, being critical, making fun of the teen, using sarcasm, using information that the teen told them against the teen, and not giving the teen credit when they felt they deserved it. For this group, activities that had mothers commenting on various teen attributes and choices that were not problematic in our *Families for Safe Dates* program for the general population were contentious; therefore, those activities were eliminated and replaced with other types of activities that were better at promoting communication while diffusing potentially contentious issues. Also, more information was added to *Getting Started* on how mothers can communicate so that teens do not shut down or get defensive.

Theme 5- Mothers were overly strict about dating. As a group, these mothers were overly strict and dogmatic when it came to their teen's dating, with many saying that they would not allow their teen to date at all until very late ages. This strictness seemed to be related to the bad experiences these women had with partners, and, as one woman said in justifying her strictness, "*I don't want my kids to go through what I went through.*" However, many teens of these mothers indicated that they were dating anyway and sneaking around about it. Thus, they were dating without parental guidance or monitoring because this was a closed off conversation for many of the mothers. Although many of these mothers indicated that they were really strict and expected their children to act right, many also revealed that they had never actually talked to their teens about their expectations. Therefore, we added more content in *Getting Started* to acknowledge the tendency of mothers who have been victims of domestic violence to be protective of their teen, but also pointed out the potential negative consequences of being overly strict and inflexible about dating and the need to set reasonable rules and expectations and to discuss them with the teen. In one of the activity booklets, we have an exercise that guides

mothers through the process of setting reasonable dating rules and discussing them with their teen.

Theme 6- Mothers and teens liked the booklet structure and found it convenient. Many comments indicated that the mailed booklet approach was convenient for these families. These comments and the barriers we encountered in getting mothers and teens to show up to focus groups further justified the mailed booklet-based structure of *Moms and Teens for Safe Dates*.

Theme 7- Mothers and teens liked having a structure for communicating with each other. Mothers indicated having a desire to talk to their teens about sensitive topics, like dating abuse, but that they didn't always know how to do that. They made several comments indicating that they appreciated that the booklets gave them a structure for guiding their conversation about dating abuse, for example:

I don't know how to get out a lot of my words, so reading this –it build up my vocabulary – to express to her better.

The booklets made it easier for me to talk to my teen about abusive relationships.

I feel like I will be more confident in dealing with him with real life situations involved with dating because we've kind of got this foundation to work from now.

I really liked this program and I would definitely encourage my family or other people who don't have good communication with their mom to do this program.

Theme 8- Families liked having a structure for spending time together. Mothers and both male and female teens made many comments to indicate that they liked that the program provided a structure for them to spend time each week doing something together and learning more about each other. The mothers liked learning more about their teens and the teens liked learning more about their mothers. The teens also liked having a chance for the mothers to learn more about who they are, and both liked the communication that was opened up by the booklets as indicated by statements like:

I got to spend time with my mom where it was just like a one on one thing and we learned a little bit about each other. I don't know, I just felt like I could open up to her about stuff. (Teen boy)

We got to know each other all over again. (Teen boy)

I just um it opened my heart a little bit more. Just being able to sit down and have a conversation with my teen and you know open up and share some of the experiences that I went through was um great for me. You know and I think everybody should do that with their children. (A mother)

Theme 9- Mothers liked having control over how much they talked to their teen about their own abuse. We took the approach of designing *Moms and Teens for Safe Dates* so that mothers would have control over how much, if any, of their own abuse they would discuss with their teens. The five activity booklets for mothers and teens to do together never mention that the program is specifically for teens exposed to domestic violence. Mothers liked having control

over how much, if any, of their own domestic violence experiences they wanted to discuss with the teen.

Theme 10- The mothers and teens appreciated being offered the program. These mothers really appreciated being offered a program and they made a number of comments to suggest that they perceive that there is very little information available to them and their teen on dating abuse prevention:

I'd just like to say thank you for making the program. It really opened up some major doors. And sincerely, this is really a helpful program, and I think that other teenagers and moms should join the program.

I was talking to one of my friends who is a psychologist and was like 'I don't understand why nobody's doing anything. You know, sexual assault is so rampant in our society. And I just don't understand why there are no public service announcements and I haven't seen any.' You know, it's just like a big void. And it's such a huge issue. And so I am really, really happy to see somebody is at least trying to develop something, you know.

I'm just glad that I got to be a part of this. Because, like I said, I done been through an abusive relationship, and now I'm free and happy and I can talk about it cause he's no where around and I don't have nothing to be scared of no more.

Discussion

Through this pilot we obtained valuable and necessary information for developing the *Moms and Teens for Safe Dates* program. We also determined that the DVPO courtroom recruitment approach was not feasible to use in a randomized efficacy trial and we were able to

pilot alternative recruitment approaches. We also learned more about the difficulties that these women face and we were able to change methodologies to accommodate their lives. This formative research was very important to conduct because we had some preconceived notions about this population that we learned were not true and we identified practices and beliefs of the mothers that might influence their teen's susceptibility to dating abuse that we had not previously considered. Learning this allowed us to revise the theoretical and conceptual framework guiding *Moms and Teens for Safe Dates* content so that it was more appropriate for this population.

For example, the initial *Moms and Teens for Safe Dates* booklets did not include content for increasing mother perceived susceptibility of their teen to dating abuse and perceived severity of dating abuse, two of the Protective Motivation Theory constructs described earlier, because we had assumed that those beliefs would already be high in the mothers. However through the formative research we learned that this was not the case. Also from the formative research, we had evidence that self-efficacy for doing the program and response efficacy, the two other Protection Motivation Theory constructs, tended to be lacking in the mothers. Self-efficacy for doing the program with their teens may be lacking because of the stresses they are under as a result of having left an abusive partner and possibly because of a general lack of self-confidence which may have resulted from the abuse. Also, some mothers suggested that they feared that their credibility with their child for promoting non-abusive relationships was compromised because of their prior involvement in an abusive relationship, dampening their belief that they and the Program have the potential to influence their child's dating abuse behaviors. Thus, the formative research justified targeting for change all four of the Protection Motivation Theory constructs. Also, the initial *Moms and Teens for Safe Dates* booklet did not include much content designed to increase the mothers' knowledge about dating abuse because we mistakenly assumed

that they would already be high in dating abuse knowledge. And through the formative research we learned that we needed to have a stronger focus on improving mother-teen communication than in the original booklets, so both of these constructs are now targeted for change. Table 2.2 lists the final constructs that are targeted for change in the *Moms and Teens for Safe Dates* program. The content for addressing these constructs is described in more detail in the discussion in Chapter 3 because some content was further revised after the conduct of *the Pilot Randomized Trial*.

Chapter 3: The *Pilot Randomized Trial*

Methods

Recruitment Strategy

Because of the previously described problems with the courtroom recruitment approach, that recruitment approach was not used for the *Pilot Randomized Trial*. Instead, the women for the *Pilot Randomized Trial* were recruited using the following methods: One-page flyers were distributed throughout two counties by posting them on bulletin boards, court houses, bus stops, and other locations that eligible women would tend to go; agencies that interact with women who have been victims of domestic violence were provided with one-page and tri-fold flyers to distribute to their clientele; study fliers were attached to Ex Parte applications in several local courts (as we did for the *Program Adaptation Study*); an email about the study was sent through the University of North Carolina at Chapel Hill mass email system and other large listservs such as Craigslist; and information about the study was sent to the North Carolina Coalition Against Domestic Violence. All of these recruitment procedures depended on women calling our toll free number to learn about the study.

Eligibility Criteria

The eligibility criteria for the study were that the mothers 1) had been a victim of domestic violence at some time in their past, 2) no longer lived with the abusive partner, 3) had a teen 12 to 15 years old, 4) spoke and read English, and 5) had access to a telephone. Eligible teens were those of the eligible mothers and were between 12 and 15 years old and spoke English. At all telephone contacts we re-assessed the mother's eligibility in terms of not living with the prior abuser because if they returned to the abuser they were no longer eligible to participate. We did not learn of any mothers returning to live with the abuser.

Study Procedures

When a woman called about the study, we described the study to her, assessed her and her teen's eligibility, informed her of required aspects of consent, and if she was interested in participating, obtained verbal consent from her for her own participation and for her teen's participation. When the mother provided consent for her teen to participate we also informed the teen of the required aspect of assent and if he/she was interested in participating we obtained his/her verbal assent for participation.

Once enrolled into the study, mothers and teens completed a 25-minute long telephone interview. See Appendices A and B, respectively, for the mother and teen baseline questionnaires. Each mother and teen was paid \$10 for completing baseline interviews. After completing the baseline interview, sets of three families were matched on the time of completion of the baseline interview and randomly allocated to one of three groups. Group 1 was the group that received both the booklets and the health educator call; Group 2 was the group that received only the booklets; and Group 3 was the control group. Families were sent a letter letting them know if they were allocated to a program or control condition.

The matched families allocated to the two treatment conditions (Group 1 and Group 2) were immediately mailed the *Getting Started* booklet (for mothers only) and Booklet 1. For those in Group 1, two weeks after that mailing, a health educator (who was a different person from the telephone interviewer) called the mother to determine if she had completed the booklet, encouraged participation, and assessed reactions to the booklet. If the booklet had been completed, then the family was mailed the next booklet and then two weeks after the family received that booklet, the health educator called the mother and this procedure was to be followed until all 5 program booklets and all 5 health educator telephone calls were completed. If

it was determined that a family had not completed a booklet, then the health educator scheduled the health educator call for a later date to give the family time to do the booklet. Families in Group 2 were mailed a booklet every two weeks but did not receive health educator calls.

Additionally, mothers in Groups 1 and 2 received a 10-minute long implementation interview about 12 weeks after they were mailed the first booklet to determine at that point in time how many booklets had been completed and to collect contact information needed to trace the family for the follow-up interview. Mothers in Group 3 (Control Group) also received a telephone interview about 12 weeks after their matched treatment families were sent the first booklet to collect contact information needed to trace the family for the follow-up interview.

One month after the Group 1 family completed the last health educator telephone call, the mother and teen from all three matched families (Group 1, Group 2 and Group 3) completed the follow-up interview (See Appendices C and D respectively). Each mother and teen was paid \$10 for completing follow-up interviews.

Study Sample

Our goal was to recruit 50 mothers and their teens for this study. A total of 84 mothers called the project office; 20 were ineligible, 1 who was eligible chose not to participate, 12 could not be reached to conduct baseline questionnaires after numerous attempts, and 51 families were enrolled into the study as defined by completing baseline questionnaires and being randomized into a study condition. In one family, a mother, but not the teen completed the baseline questionnaire, and in another case the teen but not the mother completed the baseline questionnaire, and thus 51 families participated even though there were 50 baseline questionnaires completed by the mother and 50 baseline questionnaires completed by the teen.

Thus, we met our recruitment goal. Of these 51 families, 17 were randomly allocated to each of the three groups.

Results

As noted earlier, the primary purpose of the *Pilot Randomized Trial* was to pilot the methods that are to be used in a large efficacy trial of *Moms and Teens for Safe Dates*. Thus, we begin results with lessons learned from this pilot related to recruitment, administration of the *Moms and Teens for Safe Dates* program, data collection procedures, and measures that can inform the methods of the randomized efficacy trial. Next, results from analysis of the baseline questionnaires are presented. The results section concludes with a statement about trends in program effects.

Lessons Learned

Recruitment procedures. Several problems surfaced with the recruitment procedures that need to be considered when finalizing the recruitment approach for the large efficacy trial. The recruitment procedures 1) resulted in a sample composed primarily of women victims of domestic violence in a crisis situation, which impacted aspects of the study methodology in a negative way and limits generalizability of study findings, 2) did not include adequate screening procedures, and 3) did not lead to high numbers of eligible women calling about the study, suggesting that it would be difficult to recruit the large numbers of women needed for an efficacy trial using those methods. Each is discussed in turn.

The focus of the recruitment procedures was through domestic violence organizations and other services that interact with women in immediate need due to a domestic violence crisis. As a result, we recruited many women who were in very stressful crisis situations and in need of immediate money. As a result, the motivation for participating in the study for many of the women was financial and thus they would only conduct aspects of the study that resulted in

financial incentives such as the baseline and follow-up questionnaires, and not the completion of the booklets, health educator calls, or implementation interview. Also, several of these women lied about having a 12-15 year old in order to participate in the study to get the teen financial incentives. As a result, for the randomized efficacy trial we will broaden our recruitment efforts to get a better representation of women who have been victims of domestic violence that are at many different stages of life. Doing so will be important for increasing the generalizability of study findings.

The screening procedures in the recruitments script were inadequate for 1) identifying women for whom English was a second language who would have difficulty comprehending and completing the English language questionnaires, 2) identifying women with severe mental health problems that could interfere with the conduct of the various aspects of the study, and 3) detecting lies about having an eligible teen. There were instances where a mother would pass the English-speaking eligibility criteria from the recruitments script, but then had problems understanding the questionnaire in English. We had situations where a severe mental health issue (multiple personalities, schizophrenia) became apparent while conducting the baseline questionnaire that was not noticed in the recruitment script. And we had situations where the mother disguised her voice as a teen for the teen questionnaire, had a relative play the part of the teen, or lied about the date of birth of the child to make a younger child of eligible age so that they could get the teen incentive money. Each of these problems was detected through investigating the situation and the families were withdrawn from the study. The recruitment script for the efficacy trial will be structured to catch these problems before rather than after a family is enrolled in the study.

It was difficult to enroll enough women into the study, even for this small pilot. Thus, for the efficacy trial it will be essential to broaden recruitment efforts to a larger geographic area and to have stronger partnerships with many different types of community organizations so that agencies are more engaged with the study. Offering incentives to agencies for recruitment may also help with their engagement in the study and increase their likelihood of helping with recruitment.

Administration of the Moms and Teens for Safe Dates Program. In addition to collecting information about booklet completion, the health educator protocols also collected information on participant reactions to the booklets. Of the families in Group 1 (health educator group) who completed the booklets, 100% found them helpful, thought the number of booklets was just right, and would recommend the program to others. Other comments made in the 12-week implementation survey suggested that families that did various booklets enjoyed them.

However, getting families to complete the booklets was problematic. As can be seen in Table 3.1 completion of the program was not ideal in either of the treatment groups; 41% of families in Group 1 (booklets and health educator calls) and 35% of families in Group 2 (booklets only) did not complete any of the booklets. In Group 1, 59% completed at least one booklet and in Group 2, 65% completed at least one booklet but only 29% of the families in Group 1 completed all 6 booklets and < 1% of the families in Group 2 completed all 6 booklets. As noted earlier, it appeared that many of the women in this study were motivated to participate by the financial incentives. However, we did not offer incentive money for booklet completion. In the larger efficacy trial we will offer incentives for booklet completion so that we can get a high enough program participation rate to test the efficacy of the program.

The methods we used to document program fidelity also were problematic. The booklet completion percentages above are not precise because of limitations in the methods for determining program fidelity. Program fidelity was assessed through the health educator calls (in Group 1) and the 12-week implementation telephone interviews (Groups 1 and 2). As noted in Table 3.1, 41% of mothers in Group 1 did not complete any health educator calls and only 24% of those in Group 1 and 47% of those in Group 2 completed the 12-week implementation call. If booklet completion information from either of these sources was unavailable, then the family was coded as having completed 0 booklets, which may not have always been the case. Also the 12-week implementation call was problematic because 1) for some families it was conducted too long after the family had completed booklets to remember the specific activities we asked them about, 2) those in Group 1 felt they were bothersome and redundant with what they had already said in the health educator calls, 3) families did not receive incentives for completing that call and therefore would not answer the phone to complete it, and 4) the script was awkward and cumbersome because it had to account for each family being at various stages of program completion since each family was on its own time-line for completing the program. Thus, other ways of collecting fidelity data will be considered for the larger efficacy trial.

As described earlier, the reason for having two different treatment conditions was to determine if the health educator calls motivate families to complete the booklets. More families in Group 2 (no health educator calls) (65%) than in Group 1 (59%) completed at least one booklet, but more families in Group 1 (health educator calls) (24%) than Group 2 (<1%) completed all 6 booklets. However, with only 24% of those in Group 1 completing all 6 booklets, the health educator calls do not appear to be motivating families to complete booklets. For the large efficacy trial, we have decided to eliminate the health educator calls because 1)

they do not appear to motivate booklet completion, 2) there was evidence that the mothers found them bothersome rather than helpful, 3) they were expensive to conduct because many call attempts were required to try and reach the mothers, 4) depending on completion of a health educator call before sending the family the next booklet extended the program delivery phase of the study, and 5) if *Moms and Teens for Safe Dates* is found to be efficacious, dissemination of the program could be limited because of the added expense of the health educator calls,

Data collection procedures. The procedures for scheduling interviews and for conducting the baseline telephone interviews with mothers and teens worked very well, though the teen questionnaire was a little long and needs to be shortened and simplified for the efficacy trial. Also, there were no problems encountered with human subject protection issues and protocols. The main problem we encountered with the data collection procedures was inability to trace the families over time to conduct the follow-up interview. Table 3.2 presents the percentages of mothers and teens completing follow-up questionnaires for each group and overall. The overall follow-up rate was lower than is desired for the large efficacy trial (62% for mothers and 58% for teens). The main tracing problem was the number of disconnected telephone numbers which interfered with conducting the follow-up telephone interviews (and the health educator calls, the 12-week implementation calls, and sometimes even baseline interviews). As a result, for the efficacy trial we will be collecting much more detailed information at baseline and throughout the study to aid in tracing these high-risk families over time. We will also maintain a relationship with the families by sending the families birthday and holiday cards.

Measures. This study informed the development of the mother and teen baseline and follow-up questionnaires being used in the efficacy trial. Many new scales were created during this study for assessing each construct in Table 2.2 because standardized scales were not available for

measuring many of the targeted constructs. Tables 3.3 (baseline) and 3.4 (follow-up) lists the constructs assessed with the questionnaires and the items in the appropriate questionnaire for assessing that construct. Alphas for composite measures assessing each construct also are listed, however, these should be considered very preliminary, especially for the follow-up measures, because of the small sample size. Through this pilot we could identify items with very little variation in responses and questions that seemed difficult for mothers or teens to understand or answer. We conducted psychometric analyses to examine the alphas of scales, specific items that decreased alphas, and how standardized scales performed with this particular high-risk sample, though the small sample size means that these should be examined with caution. Even so, information that we obtained in this pilot greatly informed revisions to the final questionnaires being used in the efficacy trial.

Analyses of Baseline Data

Baseline questionnaires were completed by 50 mothers and 50 teens. Here we present 1) descriptive data about the demographic characteristics of the sample, 2) descriptive data about aspects of teen exposure to domestic violence, 3) the prevalence of teen high-risk behaviors, and 4) correlations between various aspects of exposure to domestic violence and teen dating abuse perpetration and victimization.

Table 3.5 presents the demographic characteristics of the participating families. As can be noted, there was racial distribution in the sample. The average age of the mothers was 38.3 years with ages ranging from 28 to 54. Sixty percent of the mothers had education beyond high school. Sixty percent of the mothers were unemployed and 68% were single, which may have contributed to the phenomenon noted above of mothers being highly motivated by the financial

incentives. More female (76%) than male (24%) teens participated in the study. Their average age was 13.7 years and 68% reported at baseline that they had ever dated.

Table 3.6 presents information on teen exposure to domestic violence. On average, teens were exposed to domestic violence for 6.9 years; the maximum exposure was for 15 years. Approximately 80% had witnessed abuse of the mother by their biological father and for most of those teens (67%) the abuse of the mother was present when the child was born. Approximately 76% of mothers reported having been abused by more than 1 partner and 34% had been abused by 3 or more partners.

In the interview, mothers were asked to describe aspects of the abuse by the abuser that the teen was around most often; 52% of the mothers described aspects of abuse from the teen's biological father, 38% described aspects of the abuse by their boyfriend, and 1% described abuse by the teen's stepfather. The amount of abuse experienced by the mother from these partners was substantial. About 60% of the women had filed for a DVPO and 90% of those women received the DVPO. The average score of the WEB was 3.57 out of a total possible score of 4. The distributions on items composing this scale are presented in Table 3.7. The number of times the women reported experiencing various types of psychological and physical abuse was very high because the women were asked to report abuse experienced over the life of the relationship. The average number of years that the women experienced the abuse was 8 years with a range from 4 months to 27 years. We asked the women to tell us the actual number of times they experienced a variety of psychological (i.e. been threatened, humiliated, insulted), physical (i.e. been slapped or scratched, pushed, grabbed, or shoved, hit with a fist, beaten up, threatened with a knife or gun), and sexual (been threatened if she did not have sex, or was forced to have sex) acts. The women would often respond by saying things like "twice a week for 20 years" or "every day for

9 years” and then interviewers would calculate the number of times, resulting in scores like 2,080 times for the first example and 3,285 time for the second example. This was a problematic way of assessing experiences of domestic violence victimization and therefore we revised these items on the mother questionnaire for the efficacy trial. However, these responses demonstrated the chronic, long-term victimization experiences of these women. It can be concluded that the recruitment approaches used resulted in a sample of teens that had high exposure to domestic violence in terms of years of exposure and severity of acts witnessed.

Teen victimization from and perpetration of psychological, physical, sexual, and cyber dating abuse were assessed on the teen questionnaire. The items assessing these types of dating abuse victimization are presented in Table 3.8 and the items assessing these types of dating abuse perpetration are presented in Table 3.9. Table 3.10 presents the prevalence of psychological, physical, sexual and cyber dating abuse victimization (mean scores and the percentage of teens who had ever been a victim of any of the acts measuring a specific type of victimization are presented). Table 3.11 presents the prevalence of each type of dating abuse perpetration (mean scores and the percentage of teens who had ever perpetrated any of the acts measuring a specific type of perpetration are presented).

Overall the prevalence of dating abuse victimization is substantially higher in this sample than the prevalence reported in the two national probability samples that assess dating abuse victimization -- the Youth Risk Behavior Survey (YRBS) and the National Longitudinal Study of Teen Health (Add Health). According to the YRBS, rates of physical dating abuse victimization (the only type of dating abuse assessed) remained fairly stable from 1999 through 2007, ranging from 8.8% in 1999 to 9.9% in 2007 (Centers for Disease Control and Prevention, 2000, 2002, 2004, 2006, 2008), whereas the current sample reports a prevalence of 28%. In Add Health data,

the prevalence of psychological dating abuse victimization is 28.5% whereas it is 50% in the current sample and the prevalence of physical dating abuse victimization in Add Health data is 12%, whereas as noted above it is 28% in this sample (Halpern, Oslak, Young, Martin, & Kupper, 2001). Although the referenced time-frames for reporting abuse is shorter for the two national studies (YRBS assesses victimization in the previous year and Add Health assesses victimization in the previous 18 months) than it is for the current study (ever victimization), given the young age of the current sample, it is unlikely that they had much abuse to report any earlier than 18 months prior to survey administration. The findings support the literature that teens who have witnessed domestic violence are at increased risk for dating abuse.

Neither national study assessed sexual nor cyber dating abuse victimization nor any type of dating abuse perpetration, so comparisons on those types of dating abuse cannot be made. However, as noted from the tables, the prevalence of each is high. Particularly interesting is the amount of dating abuse that is occurring through electronic means such as Facebook, email, texting etc. (cyber dating abuse). Dating abuse through these means has rarely been assessed and reported in the literature. It is also interesting to note the very high percentages of *dating* teens who are victims and perpetrators of dating abuse.

The teen questionnaire also assessed bullying, sexual harassment, and peer aggression victimization and perpetration. The items assessing these types of victimization and perpetration are presented in Table 3.12. Table 3.13 presents the prevalence of each type of victimization and perpetration (mean scores as well as the percentage of teens who had ever been victims or perpetrators of any act for each type are presented). It is difficult to compare these to other studies because the measures for assessing these constructs vary substantially across studies. But these prevalences are surprisingly high; 84% have been bullied and 72% have bullied others;

62% have been sexually harassed and 20% have sexually harassed others; and 50% have been a victim of aggression from non-dating peer and 52% have been aggressive to non-dating peers.

Lastly, Table 3.14 presents correlations between characteristics of teen exposure to domestic and teen dating abuse. All coding was such that positive relationships would be expected. None of the correlations are statistically significant, likely due to the small sample size.

Trends in Program Effects

Unfortunately we were not able to examine trends in program effects for the following reasons. The low follow-up rate resulted in too few subjects in each group to make any meaningful comparisons; there were 12 families in Group 1, 7 families in Group 2, and 13 families in Group 3 who completed follow-up questionnaires. Of the families in Groups 1 and 2 combined, we estimate that about 6 completed all of the booklets. However because of issues with the methods for assessing fidelity described above, the assessment of booklet completion is not precise. Because the one-month follow-up questionnaire assessed dating abuse in the previous month, there was too little dating abuse that occurred between baseline and the follow-up in any group to assess program effects. Low alphas for some constructs further hampered assessments of program effects.

Discussion

This study met its primary purposes which were to develop a dating abuse prevention program for teens exposed to domestic violence and pilot the methods that would inform a large randomized efficacy trial of the program, though small sample sizes in the *Pilot Randomized Trial* precluded an adequate examination of the psychometric properties of the measures and

examination of program trends. The large efficacy trial is now underway and was informed greatly by this NIJ funded pilot study as described above. Thus, this study contributed greatly to the methodological rigor, data quality, and potential success of the large efficacy trial.

The final booklets that are being evaluated in the efficacy trial are in Appendices E1-E6. *Getting Started*, is for mothers only and the five activity booklets include a variety of games, scenario analyses, guided discussions, role plays, and puzzles designed to alter the constructs in the Table 2.2. Table 3.15 describes the content of each booklet and the constructs being targeted for change in each booklet.

This study is innovative in that it laid the groundwork for the first randomized efficacy trial of a program for preventing dating abuse victimization and perpetration among teens exposed to domestic violence. There is a serious need for effective programs for preventing teens who have been exposed to domestic violence from using violence against their dating partners and from being victimized by dating partners. Because of the large number of teens exposed to domestic violence and the high-risk status of those teens, dissemination of such a program could make a substantial impact on breaking the cycle of family violence that leads to so many of our public health and societal problems. Preventing dating abuse also has implications for the health care system because victims of dating abuse suffer many consequences, such as physical injury, substance abuse, eating disorders, depression and suicidal behaviors, that require medical attention (Ackard, Eisenberg, & Neumark-Sztainer, 2007; Brown, Cosgrave, Killackey et al., 2008; Muñoz-Rivas, Graña, O’Leary, & González, 2007; O’Leary, Slep, Avery-Leaf, & Cascardi, 2008; Roberts, Klein, & Fisher, 2003). Furthermore, many working in the court system recognize the need for such programs because teens exposed to domestic violence often end up in Juvenile Court. If *Mothers and Teens for Safe Dates* is found to be effective in the randomized

efficacy trial, given its structure, its dissemination could be facilitated through the justice system in collaboration with other related agencies.

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Dissemination of Research Findings

This study was a pilot study with the primary purpose of informing the methods of a large randomized efficacy trial of *Moms and Teens for Safe Dates*. As such, the study was invaluable to the investigators in designing the efficacy trial and increasing its likelihood of success. But the findings have limited generalizability to others. However, the 10 themes identified through the *Program Adaptation Study* focus groups and interviews were presented at the National Institute of Justice Conference in 2011 (reference below) and those findings have been written up for a manuscript that will be submitted to a peer reviewed journal. The data are currently being prepared for archiving.

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