DOI: 10.1097/JPN.0b013e31824356dd

CE **Continuing Education**

J Perinat Neonat Nurs • Volume 26 Number 4, 307–316 • Copyright © 2012 Wolters Kluwer Health | Lippincott Williams & Wilkins

Safe Mom, Safe Baby

A Collaborative Model of Care for Pregnant Women Experiencing Intimate Partner Violence

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ABSTRACT

Violence during pregnancy is a national and global health-related problem. Intimate partner violence significantly increases the risk of maternal and neonatal morbidity and mortality. Abused pregnant women are 1.4 times more likely to deliver a preterm or low-birth-weight infant requiring extended and resource-intense care in tertiary settings. Despite the prevalence of intimate partner violence during pregnancy, very little is written about established clinical programs designed to address this problem. This article presents the design, implementation, and evaluation of a nurse-led, evidence-based initiative respected for enhancing the health and safety of abused pregnant women. This interdisciplinary program combines registered nurse case management, the advocacy services of a community-based domestic violence agency, and perinatal care into a seamless continuum of professional services. Program interventions focus on helping clients navigate (1) their perinatal experiences across healthcare settings and (2) the complexities of criminal justice, legal, and social service systems within the community. Program-related data collected and evaluated for performance improvement purposes are discussed, and innovative educational programming is described.

Key Words: case management, collaboration, intimate partner violence, pregnancy, program evaluation

Safe Mom, Safe Baby (SMSB), a nurse-led interdisciplinary clinical program, improves outcomes for women and infants by providing comprehensive, fully integrated services to pregnant and recently delivered clients experiencing intimate partner violence (IPV). The program's primary goal is to enhance the health and safety of abused women by helping them engage effectively with healthcare providers and navigate the complexities of their community's criminal justice, legal, and social service systems. Other program priorities include enhancing clients' adoption of safety behaviors, increasing the ability of interdisciplinary providers to identify IPV within their clients, and influencing health policy initiatives at the local and state levels.

Client empowerment is the foundation of all SMSB initiatives. When interacting with potential clients, the SMSB registered nurse (RN) and domestic violence advocate offer a wide range of assessments and direct services (see Figure 1). Following this initial discussion and entry into the program, the client drives the development of her personal safety plan. She identifies her readiness to engage in various service options, which might include crisis intervention, emotional support,

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This study was funded in part by University of Wisconsin School of Medicine and Public Health, the Wisconsin Partnership Program, and Office on Violence Against Women, US Department of Justice Assistance (grant no. 2009-WF-AX-0031). The authors thank the following individuals for their valuable contributions to the Safe Mom, Safe Baby initiative: George P. Hinton, FACHE, Chief Administrative Officer, Aurora Sinai Medical Center; Tina C. Mason, MD, MPH, Director of Obstetrical Residency Program, Aurora Sinai Medical Center; Carmen Pitre, Co-Executive Director, Sojourner Family Peace Center; Jackie Tillet, CNM, ND, Manager, Midwifery and Wellness Center, Aurora Sinai Medical Center; Sally Turner, MSN, RN, Director Patient Experience, Aurora Sinai Medical Center; and the caregivers from the Safe Mom, Safe Baby program.

Disclosure: The authors have disclosed that they have no significant relationships with, or financial interest in, any commercial companies pertaining to this article.

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Submitted for publication: June 28, 2011; accepted for publication: November 22, 2011.

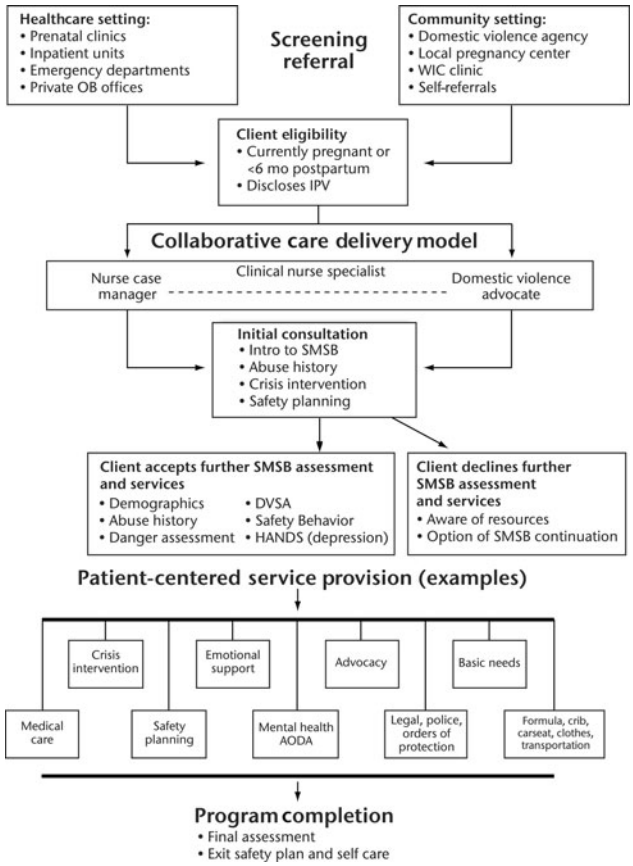

Figure 1. Safe Mom, Safe Baby: process model. AODA indicates alcohol and other drug abuse; DVSA, Domestic Violence Survivor Assessment; HANDS, Harvard Department of Psychiatry/NDSD Scale; IPV, intimate partner violence; OB, obstetrics; SMSB, Safe Mom, Safe Baby; WIC, Special Supplemental Nutrition for Women, Infants, and Children.

advocacy within various healthcare and community systems, and assistance with specific safety strategies.

BACKGROUND

Intimate partner violence, more commonly known as domestic violence, occurs between current/former partners or spouses. Perpetrators use physical, psychological, and/or sexual abuse with the intent of intimidating and controlling another partner. Violence during pregnancy is a national and global health-related problem, affecting women of all ages, races, religions, and socioeconomic groups. An estimated 1 in 12 women in North America experience IPV while pregnant[1,2]; prevalence rates approach 20% for teens[3] and women living in other parts of the world.[4,5] Intimate partner violence significantly increases the risk of maternal and neonatal morbidity and mortality.[6–9] Abused pregnant women are 1.4 times more likely to deliver a preterm or low-weight infant requiring extended and resource-intense care in tertiary settings.[10]

The majority of articles addressing IPV during pregnancy focus on describing the prevalence of IPV or factors associated with abuse during pregnancy (J.M.N., unpublished data, 2011). The relatively few publications addressing IPV-related interventions have been written by researchers investigating a single intervention in a clinic or community setting. These research articles cluster into the categories of IPV screening,[11–16] behavioral counseling,[17–25] and nonprofessional mentoring by residents of the community.[26,27]

The purpose of this article is to expand the intervention-focused knowledge base by describing the processes associated with the design, implementation, and evaluation of a nurse-led, interdisciplinary case management program that has been addressing IPV during pregnancy since 2005. Planning initiatives that helped identify the need for this clinical service and strategies that helped prepare members of the healthcare system and community for the collaborative care delivery model are presented. Next, program operations and the published evidence informing the program's design are described. Finally, 6 years of program-related data, monitored as part of the team's commitment to continuous performance improvement, are discussed.

PROGRAM PLANNING

The success of the SMSB initiative can be attributed to careful planning and 4 key factors: (1) compelling data supporting the need for a program dedicated to IPV during pregnancy; (2) the ability to build on highly respected abuse response services within the healthcare system and the community domestic violence agency; (3) securing external funding; and (4) the strong partnership between 2 organizations and the commitment of their dedicated professionals for the success of this program.

The decision to develop the SMSB program was driven by evidence. In 2002, the Abuse Response Services clinical nurse specialist (CNS) conducted an institutional review board–approved study with 2 primary objectives.[28] The first objective was to quantify the prevalence of IPV within that healthcare system's clients ($n = 1268$) accessing 5 emergency departments and 19 primary care clinics. The second objective was to increase knowledge about the impact of IPV on the health of adult women. Results of this study, anecdotal evidence, and scientific findings emerging from the professional literature alerted providers within the healthcare system and the community domestic violence agency to the need for a dedicated program addressing the complex problems of pregnant women experiencing IPV.

Following the study, the CNS, the leader of the domestic violence agency, and a small group of interdisciplinary colleagues drew on their clinical experiences and all available data to conceptualize and outline a new IPV program for pregnant women. The limitations of agencies working alone were well known to this group of expert providers. For example, prior to SMSB, healthcare providers focused on the pregnant women's medical needs but offered limited assistance in addressing complex safety needs. Healthcare providers would simply give the client a phone number or brochure for the local domestic violence agency. Similarly, the staff of domestic violence agencies seldom knew how to help a pregnant woman with health-related needs.

Rather than designing 2 separate programs working in isolation, planning team members envisioned an integrated, collaborative model of care that would help abused pregnant women navigate healthcare settings and community-based services. To achieve its vision of comprehensive and well-coordinated IPV services, this small planning group partnered nursing case management with community-based domestic advocacy services.

The small planning group then took its vision for a collaborative care delivery model to a larger group for additional discussion, refinement, and implementation. This larger group, composed of academic faculty, physicians, certified nurse midwives, bedside clinicians, social workers, and security personnel, helped delineate the program's mission, clinical practices, and education-related services. The CNS also consulted with IPV survivors and representatives of community-based social services agencies, law enforcement, and the criminal justice system in the development of system linkages to the program.

The SMSB workgroup recognized that additional funding would be needed to implement, evaluate, and sustain this innovative clinical program. Working in collaboration with the healthcare system's Abuse Response Services, leaders of the SMSB initiative developed proposals that prepared them to respond quickly and successfully to external funding opportunities. In 2005 and 2008, this group obtained grants for the SMSB program from a community-academic partnership fund administered by the state's largest School of Medicine and Public Health. In 2010, additional funding was obtained from the Office of Violence Against Women, United States Department of Justice Assistance.

Building and sustaining a collaborative model of care between a large healthcare system and a community-based domestic violence agency require attention and diligence. Similar to the need to clearly articulate clinical policies and practices, a written memorandum of understanding between agencies is also crucial to this successful partnership. Regular face-to-face meetings among staff of the sponsoring agencies also help promote positive working relationships.

PROGRAM IPLEMENTATION, OPERATIONS, AND EVOLUTION

The SMSB program has continually evolved in response to client and organizational needs as well as the best evidence available. The program's focus on client-centered care, interdisciplinary teamwork, care integration across practice settings, program evaluation, agency partnerships, and involvement in health policy initiatives has positioned the team to succeed in this era of limited healthcare resources.

Evidence informing program design

The SMSB nurses have drawn heavily on the work of Judith McFarlane, DrPH, RN. McFarlane's extensive program of research and 2 assessment and intervention protocols coauthored by her[29,30] have guided the SMSB nurses since the program's inception. Her program of research focused on testing interventions designed to promote safety among abused women. She helped create the Abuse Assessment Screening Tool,[31] led many investigations and coauthored numerous articles addressing IPV, including abuse during pregnancy.[3,16,23,27,31–34] In 1998, McFarlane[30] called for expanded intervention strategies that include case management and multi-agency collaboration to become standard of care for all pregnant women. She also recommended further evaluation of the benefits of community-based outreach workers.[34]

McFarlane's recommendations, as well as the findings from 3 studies discussed later, motivated the SMSB implementation team to design a collaborative care delivery model grounded in the principles of case management. Gonzalez-Calvo and colleagues[35] assessed the effect of case management on 9 major predictors of poor perinatal and infant outcomes, including the presence of family violence among African-American women. The comprehensive intervention, delivered by county public health nurses, included oversight of medical care, referrals to needed services, education, and removal of conflict from the environment. Women were visited at home at least once a month until the newborn was 12 months old. Women with greater needs, however, were seen as often as once or twice weekly. Gonzalez-Calvo and team members[35] reported that high-risk women were more likely to have favorable outcomes if psychosocial, environmental, and healthcare problems could be resolved through case

management. Similarly, Curry and colleagues[36] found that an intervention consisting of counseling using the abuse response protocol of McFarlane and Parker,[29] viewing an abuse-related video, and round-the-clock access to a nurse case manager reduced stress scores significantly in the intervention group.

Issel[37] interviewed 24 Medicaid-eligible women to determine their perceptions based on their personal experiences of the outcomes associated with comprehensive prenatal case management. Case management was provided primarily by RNs and consisted of home visits, coordination of services, monitoring the use of health and social services, and providing education. Women perceived that case management made a difference in the areas of emotional well-being, learning, lifestyle behaviors, finances, service utilization, and physical health.

The decision to include a domestic violence advocate in the SMSB care delivery model, and the staff's commitment to providing support to high-need clients 2 to 3 times each week, were based on McFarlane's recommendations and the findings of a study conducted by Navaie-Waliser and colleagues.[38] Navaie-Waliser's team evaluated the impact of social support, provided by community health/maternal outreach advocates, on high-risk Medicaid-eligible pregnant women. Social support included assessment for transportation needs, maternal and child health education, assessment of the client's living situation, assistance with access to services, development of women's interpersonal skills, initiation of referrals for services, and advocacy. The researchers concluded that the type and intensity of social support were important components of the outreach program.

Safe Mom, Safe Baby team members

The SMSB interdisciplinary team is led by a CNS who serves as grant director. Team members include an RN case manager and a community partner domestic violence advocate who work closely with the clients' providers across the healthcare and community continuum of care. The program's mission, operations, and outcomes are overseen by an interdisciplinary advisory team composed of an obstetrician, a certified nurse midwife, other members of the integrated healthcare system, and community-based domestic violence partners.

As the program has evolved, the added benefits of bicultural and bilingual staff have become apparent. The current RN case manager is of African-American descent; the advocate is Latina and speaks English and Spanish. Both team members live in the same areas where most of the SMSB clients reside. Their insights into the diverse needs of clients, and their skillful formal and informal communication with interdisciplinary providers, have greatly enhanced the program's effectiveness.

Clients served

The SMSB program serves pregnant and newly delivered women who self-disclose IPV during screening. Although services are available to all women living in the metropolitan area of a large Midwestern city, SMSB predominantly addresses the needs of a particularly vulnerable population of socioeconomically challenged women. The majority of SMSB clients are nonwhite women with limited economic resources living in the city's zip codes with the highest infant mortality rates.[39,40] Despite efforts that encourage women to disclose abuse and enter the SMSB program early in their pregnancy, the majority of clients disclose abuse and/or agree to enter the program in their last trimester of pregnancy or after the birth of their infant.

Practice settings

Safe Mom, Safe Baby services are provided in healthcare settings and the community. The program staff interacts with clients at emergency departments, perinatal clinics, private offices, labor and delivery units, a restraining order clinic, or a community-based agency. On limited occasions, the domestic violence advocate may interact with clients at their homes after ensuring their safety. The program staff also maintains offices in the healthcare system and domestic violence agency.

The SMSB staff accepts invitations to provide IPV-related education to various agency members and community groups. For example, tailored programs are available to faith-based groups and school communities interested in improving the health and safety of pregnant women and teens affected by IPV.

Referral process

Nurses and other providers contact the SMSB nurse case manager directly (Figure 1). Arrangements are made for the nurse case manager to meet individually with the client that same day in the healthcare setting or at a later time/place that is safe and agreeable to the client. If referrals are made from the healthcare system's clinical sites after business hours, a message is left and the nurse case manager attempts initial contact with the client via the telephone. These referrals have a much higher rate of loss to follow-up than with clients in which the team can make the initial contact in person.

In a similar fashion, referrals that come through the community are made by the staff at the partner domestic violence agency. The advocate arranges to meet with the client at a service site, (ie, restraining order

clinic, domestic violence agency office) or at a later time/place that is safe and agreeable to the client. Additional referrals come directly to the SMSB offices from other hospital or healthcare systems, private physician offices, and/or self-referrals.

Participation in the program is voluntary, and refusal to participate does not affect any other care or treatment. There is no cost to participate in the program, and all women referred to SMSB are eligible to receive services.

The value of entering the SMSB program early in the pregnancy is emphasized to both healthcare providers and potential clients, and positive inroads are being made in this area. Interventions vary considerably depending on the timing of program entry, the client's readiness for change, and length of time spent with SMSB team members.

Case management assessment and services

Client empowerment, emerging from thorough assessments and mutually determined interventions, is the focus of the SMSB program. The mission and philosophy are informed by the empowerment model,[41–43] a theoretical framework used by researchers investigating IPV.[44] In essence, SMSB team members work with clients to increase the woman's independence, control over decision-making and involvement with others.

The client is in charge of the process, with the client's autonomy and strengths acknowledged and respected. The SMSB team members partner with the client when arranging for services to be provided. The desired outcome of this process is not necessarily that the client leaves the abusive relationship, at least not immediately. Research suggests that the majority of battered women return to the abusive relationship several times but eventually do leave the violent partner.[44] Consistent with the empowerment model, providers need to anticipate that clients will feel ambivalent about "next steps."

The SMSB providers know that they need to create an environment that is conducive to sharing information about IPV without fear of judgment, disbelief, or condemnation. They recognize that clients need their providers to listen to them, take abuse seriously, help them consider options, and respect their decisions. The SMSB program creates a supportive, nonpaternalistic environment where abused pregnant women can find safety, respite, support, and affirmation of their strengths.

Because client empowerment emerges from thorough assessments, the client's immediate safety needs are identified and crisis interventions are provided during the initial consultation. The SMSB team and the client then embark on a comprehensive assessment process that includes discussion of the nature and extent of the abuse. This assessment is guided by the use of 5 instruments[31,32,45–47] (see Table 1). To promote the privacy and safety of women served, all client-specific data are treated as confidential.

The comprehensive assessment usually reveals a myriad of stressors, risk factors, and challenges in the pregnant woman's life. The client is the one to prioritize the stressors needing immediate attention and the issues that can be addressed later. The stressors associated with poor birth outcomes, such as IPV, insufficient food, lack of transportation, addiction, and mental illness, are usually identified by clients as priorities in the need of change.

Although the need for change has been acknowledged by the client, evaluating a woman's readiness for change is highly complex. The transtheoretical model[48,49] provides the SMSB staff with a useful stages-of-change framework for understanding the experiences of individuals considering major life changes, modifying a problem behavior, or acquiring a positive behavior. Creating change within an abusive relationship has only recently been conceptualized within the context of the stages-of-change model.[50,51] Nurse researchers have used this model as the conceptual framework in several recent studies.[28,52–54] The SMSB staff has also found the framework a useful guide when considering stage-based interventions.

Interventions are always client-centered and emerge from the priorities identified during assessments. Mutually determined plans of care are developed by the client and the SMSB team. Every client of the SMSB program, regardless of the initial referral source, has access to services from both the RN case manager and the domestic violence advocate. This effective and efficient partnership maximizes the impact of their unique and overlapping roles. Team members communicate regularly to ensure timely, comprehensive, and integrated services.

By design, most clients complete the program by 6 months postdelivery. Some exceptions are made, however, to work with clients longer if they have ongoing, high-risk medical and safety needs. The extent of SMSB services for each client depends primarily on which trimester the client entered the program and the complexity and urgency of needs identified. Approximately half of SMSB clients receive intensive and frequent contact (2-3 times per week for months). The remaining half of the clients have needs that span the continuum. For example, some clients' needs are addressed successfully through occasional telephonic conversations, whereas other women may need a 1-time, daylong meeting that helps them relocate to emergency shelter out of the state. All clients receive in-person services with either

Table 1. **Description of instruments used in the Safe Mom, Safe Baby program**

Instrument	Instrument description	Program entry	Throughout program	Program exit	Score calculation
Abuse Assessment Screen[31]	5-question tool designed for use with pregnant women experiencing IPV. Assesses frequency and perpetrator of physical, sexual, and emotional abuse.	X			No total score is computed for this screening instrument.
Danger Assessment (revised)[45]	20-item instrument designed to assess the likelihood of lethality, or near lethality, occurring in a situation of IPV. Measures the level of danger the client is currently facing.	X			Weighted scoring algorithm identifies 4 levels of danger: variable, increased, severe, or extreme danger.
Domestic Violence Survivor Assessment[46]	11-category assessment tool used to (1) capture the client's perceived reality, (2) guide abused women and care providers as they traverse the decision-making process related to seeking safety and nonviolence, and (3) provide measures of interventions and intermediate goals.	X		X	Possible score range from 1 to 5. Final score reflects the number of stages moved between program entry and exit.
Harvard Department of Psychiatry/NDSD Scale (HANDS)[47]	10-item screening tool designed to predict the likelihood of an individual suffering from some depressive disorder that may require treatment, while minimizing the number of false-positive and false-negative results.	X			Items are scored for frequency of occurrence of each symptom during the past 2 weeks. Total scores range from 0 to 30.
Safety Behavior Checklist (modified)[32]	31-item checklist addressing the client's use of safety behaviors. Original 15-item checklist modified by the SMSB staff.	X	X	X	Calculates the number of applicable safety behaviors used.

Abbreviations: IPV, intimate partner violence; SMSB, Safe Mom, Safe Baby.

the nurse or the advocate or both. A summary of one client's situation and services provided by the SMSB staff is provided (see Table 2). Specific details were altered to protect the client's identity.

Education of interdisciplinary providers

Comprehensive education of healthcare providers was a major component of program planning and implementation, and attention to education remains a priority today. This focus on education is driven by evidence emerging from 2 studies.[55,56] For example, despite screening standards supported by the Association of Women's Health, Obstetrics, Neonatal Nurses[57] and the American College of Obstetricians and Gynecologists,[58] national studies revealed that less than half of reproductive healthcare providers routinely screen for IPV.[55,56]

The SMSB nurses work diligently to ensure that the clinical practice of interdisciplinary providers is aligned with the IPV-related recommendations of their professional organizations. Providers are educated to screen all adult clients receiving care at inpatient and emergency departments, and the Abuse Assessment Screening Tool[31] is embedded into the practice of 2 busy perinatal clinics. Education and ready access to tools have resulted in high levels of provider screening and client disclosure of abuse.

More than 2000 caregivers have participated in various IPV-related educational experiences. Innovative

Table 2. Example of a client served by the Safe Mom, Safe Baby program

T was a 19-year-old first-time mother who finally felt safe enough to tell the provider that the father of her infant was hitting and screaming at her. She agreed to speak with the Safe Mom, Safe Baby registered nurse case manager, who then met with her in the clinic. Together they identified an immediate need for transportation to the clinic and prenatal visits since T's boyfriend was unreliable and often told T that frequent visits to the doctor were unnecessary. T was deeply ambivalent about her feelings for her boyfriend; however, T was willing to work closely with the nurse to develop a safety plan in her home and begin a discussion about the pending delivery and safety of the infant. The advocate arranged transportation for T and low-cost clothing for the infant. As requested by T, the registered nurse case manager assisted the nursing staff on the Labor and Delivery unit with safe visitation of the baby by the abusive father without contact with the mother. After the birth of the healthy newborn, and seeing that the boyfriend was becoming even more controlling, T identified the need for more protection. The advocate helped T obtain a temporary restraining order from the bedside in the hospital and find safe housing outside of the abusive relationship after discharge. T now has hope of a future without abuse.

educational programming is tailored to meet the unique learning needs of interdisciplinary providers practicing in specialized clinical areas such as perinatal clinics, emergency departments, and critical care units. Workshops include discussion of IPV-related standards and offer opportunities to refine communication skills through role-playing.

Online resources are always available to caregivers. All healthcare system employees obtain IPV-related education via an annual online safety review, and RNs are responsible for completing more extensive IPV education each year as well. Video clips of IPV survivors sharing their personal experiences and perspectives on abuse-related interventions are a particularly effective component of Web-based educational programming. Four online learning modules, incorporating video clips of residents performance during standardized IPV client scenarios, were developed specifically for physicians specializing in obstetrics and family medicine. These opportunities prepare providers to skillfully inquire about, and respond to, clients' IPV-related concerns. Although the resources described here are not commercially available, providers seeking IPV-related training and other educational resources for their organization and/or clients are encouraged to visit the Futures Without Violence[59] and National Health Resource Center on Domestic Violence[60] Web sites.

PROGRAM EVALUATION

Every quarter, the SMSB team formally evaluates program-related processes and assesses the extent to which the program is achieving its mission and purpose. It is a challenge to evaluate the impact of clinical programs such as SMSB that are designed to address complex, client-specific, multifaceted issues among highly mobile and vulnerable women. Despite this challenge, the SMSB team remains committed to collecting data and considering data trends when making decisions for this clinical program.

It is important to note that SMSB team members elect not to use outcome measures related to revictimization rates or danger assessment scores. Revictimization rates and danger assessment scores often measure the behaviors of the perpetrator and not the victim. Instead, the SMSB staff looks at client feedback and measures of client behaviors that indicate changes in the women's readiness for change and adoption of safety behaviors. These indicators have proven useful in guiding program interventions and help the SMSB team focus on the clients' safety enhancing behaviors. Information presented in the following sections is based on the evaluation of program data collected from 2005 to 2010.

Referral patterns

During the first 3 years of the SMSB program, the majority of referrals came from within the sponsoring healthcare system, particularly the high-volume perinatal and inpatient settings. As healthcare providers and advocates throughout the metropolitan area grew more familiar with SMSB services, referral patterns changed. In 2010, approximately 51% of the referrals were from providers within the sponsoring healthcare system and 39% were clients of the partner domestic violence agency. An additional 10% of program clients were self-referred or referred from another healthcare system.

The initial consultation and intake assessment were completed by 373 clients, and all were offered the full range of SMSB services (see Figure 2). Of these 373 clients, 340 (91%) enrolled in SMSB and the remaining 33 (9%) declined further services (intake only). Of the 340 women electing additional SMSB services, 201 (59%) completed the program (completers) whereas 139 (49%) did complete the final assessments (noncompleters). Women who did not complete the program either chose to withdraw from the program or could not be contacted. Overall, of the 418 referrals received, 201 (48%) completed all aspects of the SMSB program. This completion rate was similar whether the client

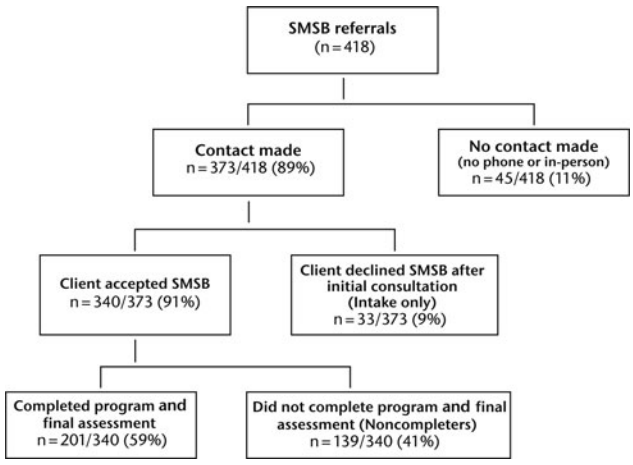

Figure 2. Safe Mom, Safe Baby (SMSB) program: client participation, 2005–2010.

entered the program through a healthcare or community setting.

Readiness for change

The program's impact on clients' readiness to initiate significant life changes is measured using the Domestic Violence Survivor Assessment instrument,[46] which clients complete when entering and completing the program. These data suggest that clients receiving SMSB services grow in their readiness to initiate significant life changes. More than half of SMSB clients completing both an entry and exit Domestic Violence Survivor Assessment[46] progressed 1 to 4 levels toward action and maintenance of violence-free relationships. This progress correlates with an overall increase in SMSB clients' adoption of safety behaviors irrespective of the woman's decision to stay or leave the relationship.

It is important to note, however, that reversion to earlier stages of change or lack of forward progress is not indicative of women's lack of desire to achieve safety. Rather, this outcome may relate to long-held dreams, individual life circumstances, and the need to create change according to the client's timeline. Over time, SMSB team members have gained increased understanding of the complex dynamics of IPV during pregnancy: the tensions between women's illusions of their partner and home, and the reality of their intimate partner's abusive behaviors.

Adoption of safety behaviors

Since 2009, the Safety Behavior Checklist[32] (modified) has been used to calculate the total number of safety behaviors used by the client at the time of SMSB program entry and program completion. On the basis of their experience and knowledge of the IPV-related literature, SMSB team members added 16 additional safety behaviors to the original 15-item instrument. This expanded instrument reflects the safety behaviors commonly used by abused women in their home, work setting, and community. Scores on the Safety Behavior Checklist[32] (modified) can range from 0 to 31. Clients completing the Safety Behavior Checklist[32] at the beginning and conclusion of SMSB services were performing an average of 22.8 safety behaviors at intake compared with 27.8 safety behaviors when leaving the program.

Birth outcomes

As stated previously, abused pregnant women are 1.4 times more likely to deliver a premature or low-birthweight infant.[10] Birth outcome data for all SMSB clients are difficult to obtain because team members do not have access to data for women delivering outside of the sponsoring healthcare system. The sponsoring healthcare system, however, includes one of the largest birth centers in the state, and SMSB team members are encouraged by a recent review of birth outcome data. Despite their increased risk for poor outcomes, SMSB clients delivering at this center in 2009 and 2010 achieved birth outcomes *comparable* with the overall population of women delivering at this center.

These encouraging birth outcomes may relate to the priorities of the SMSB team. The nurse case manager and domestic violence advocate focus their interventions on many of the stress factors in the pathway to preterm birth that can be exacerbated by issues of money, work, relationships, health, abuse, safety, and racism. These providers understand that psychosocial stress can lead to behavioral risk factors and that behavioral risk factors impact biological risk factors and increase the likelihood of preterm birth. Taking a proactive approach to reducing the impact of IPV on pregnancies, thus increasing safety and reducing abuse, appears to be an important piece of the complex puzzle of improving birth outcomes in this community.

Client feedback

As part of the SMSB process improvement program, 13 clients were interviewed about their experiences. Clients perceived that the most useful aspects of the program were the ability to speak candidly about their abuse experiences, the establishment of trusting relationships with the SMSB staff, increased social support, and reliable linkages to needed resources. These women also expressed that they appreciated the SMSB staff's ability to help them better understand the dynamics of the abusive relationship. Clients perceived that this increased understanding enabled them to take action. Overall, clients were highly satisfied with their SMSB experiences and believed strongly that the

program should continue. They also recommended expanding program resources and heightening visibility of program services within the community.

CONCLUSION

The SMSB program has made gains in addressing the complex problem of IPV during pregnancy. These gains reflect the impact of the collaborative care delivery model, particularly how the model supports clinical integration and promotes synergy among the unique resources and skill sets of the healthcare system and community domestic violence agency. Positive health- and safety-related outcomes for women and their infants are being achieved, and staff members of healthcare and domestic violence organizations are benefiting from the program's consultation and educational services

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