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Pregnant Teens in Foster Care: Concepts, Issues, and Challenges in Conducting Research on Vulnerable Populations

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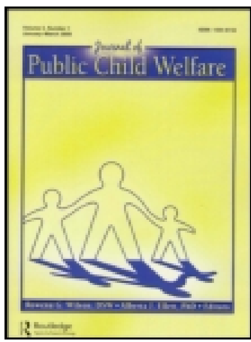

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Pregnant Teens in Foster Care: Concepts, Issues, and Challenges in Conducting Research on Vulnerable Populations

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Teens in foster care give birth at over twice the rate of other teens. Unique challenges exist for these vulnerable teens and babies, yet research on such populations, particularly within the systems that serve them, is limited. A demonstration project at Inwood House, a residential foster care agency in New York City, from 2000 to 2005, at the same time that the Administration for Children's Services was exploring policy and practice changes for this population, is described. Research design and implementation issues, descriptive data, and experiences provide lessons for improving the evidence base to meet the needs of pregnant teens in care.

KEYWORDS *child welfare, organizations/systems, foster care, pregnant teens*

TEEN PREGNANCY AND BIRTH WITHIN THE FOSTER CARE SYSTEM

The teen birthrate of 34.3 per 1000 females age 15–19 years is the lowest level ever recorded in the United States (U.S. Centers for Disease Control and Prevention [CDC], 2011; Hamilton, Martin, & Ventura, 2011). Despite

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this progress, challenges for babies of teen mothers are great—in 2006, the infant mortality rate in New York City (NYC) for babies of teen mothers was 24% higher than the NYC average, and in 2002, only 45% of teen mothers in NYC received prenatal care in their first trimester (Citizens Committee for Children of NYC, 2011; NYC Department of Health and Mental Hygiene, 2002). Although the overall percent of women receiving late or no prenatal care has decreased dramatically over the past decade, late or no prenatal care is higher among teens than all other groups (U.S. Department of Health and Human Services, 2005, 2010). In addition, low birth weight (LBW) among teen mothers is significantly higher than among mothers of all ages (11.7% of births to 15-year-old mothers, 9.5% of births to 19-year-old mothers, and 8.3% all births) (March of Dimes, 2009). In NYC, nearly one in 10 (9.9%) babies born to mothers age 19 years or younger were LBW, compared with 8.4% of babies born to mothers of all ages (NYS Council on Children and Families KWIC, 2012). Furthermore, poverty has long been considered one of the strongest predictors of low birth weight, particularly among teen mothers (Alan Guttmacher Institute, 1994; Reichman, 2005). In short, "pregnant teens are more likely than older mothers to be poor, undereducated, or to lack access to resources or services—all, in themselves, risk factors for low birth weight" (Reichman, 2005, p. 100).

Moving beyond risks among pregnant teens in general, in 2009, more than 400,000 children, from birth through age 17 years, were in foster care in the United States, some 24,605 in New York State and 15,895 in NYC (McKlindon, 2011; NYS Office of Children and Families, 2009). Although child welfare systems have sought to improve lifelong prospects for youth in foster care, a longitudinal study of youth who have left care suggests that their employment, stability, and health outcomes are grim (Sribnick, 2011; Courtney, Dworsky, Lee, & Raap, 2009). After leaving foster care, 2 to 4 years later only 50% are employed, 35% have been homeless, and 33% have no access to health care (Courtney, Dworsky, Lee, & Raap, 2009).

These long-term prospects may be even bleaker for those teens who become parents while in care. It is estimated that 33% of girls in foster care become pregnant by age 17 years and 50% by age 19 years (Sullivan, 2009; Courtney et al., 2005). More teens in foster care give birth than teens who are not in the system, with one study (Pecora et al., 2003) estimating the birth rate for girls in foster care at 17.2%, compared with 8.2% for unmarried teen girls who are not in care. More recent data suggests that, by the time they leave foster care (aging out, emancipation, or returning to their families), nearly 33% of females have given birth to at least one child (Schuyler Center for Analysis and Advocacy, 2009). Furthermore, the range of challenges for girls in foster care, such as mental health issues, past victimization, and substance use increase risks for early pregnancy (Coleman-Cowger, Green, & Clark, 2011). NYC does not aggregate pregnancy or births for foster care youth, thus a comparison with teen birth rates among youth who are not in care,

or demonstration of other risk factors as they relate to pregnancy cannot be determined. Lack of such estimates, even to identify the nature of the target group, pregnant girls in care, demonstrates one major challenge of policy-making for this particularly vulnerable population.

There is an extensive literature on the service needs of pregnant teenagers, and there are data that reflect the needs and long-term outcomes of teens in foster care. There is little discussion in the literature, however, of the intersection of these two, pregnant teens in care. Recognizing that pregnant teens in foster care may be at greater risk than other pregnant teens, for poorer health, educational and financial outcomes, and/or for placement of their own children in care, this limited knowledge base is particularly critical.

SPECIAL CHALLENGES OF RESEARCH ON PREGNANT AND PARENTING TEENS IN CARE

When teens are pregnant in care, the system has to provide for their additional medical and emotional needs and address the increased likelihood of intergenerational placement, specifically that their children will be placed in care (Schuyler Center for Analysis and Advocacy, 2009). Some studies have demonstrated evidence of effectiveness of programs serving vulnerable pregnant populations, such as home visit and parenting programs (Olds, 2006; Olds, Sadler, & Kitzman 2007; Chaffin, 2004) and specialized teen prenatal clinics (Bensussen-Walls & Saewyc, 2001; Gifford, 2001).

However, few have measured these outcomes among teens in foster care. One cross-site evaluation of demonstration programs for pregnant teens that was funded by the U.S. Office of Adolescent Pregnancy Programs (OAPP) included 12 projects and more than 1000 adolescents. The study reported that these interventions resulted in significant improvements in effective contraceptive use, increased use of routine childcare, and short-term delays in repeat pregnancy (Kan et al., 2012). Notably, one project that was part of this funding stream was not even eligible for the cross-site evaluation because the study design could not be met in its residential foster care setting. Determining how to best serve the needs of pregnant teens in care is, thus, particularly hampered by the challenges of conducting research within this complex service delivery system.

These challenges are common to conducting research in other multi-layered systems, including school-based pregnancy prevention programs (Kirby, 2001; Kirby, Laris, & Rolleri, 2007; Key, Gebregziabher, Marsh, & O'Rourke, 2008; Bennett & Assefi, 2005), and public health systems research (Bensussen-Walls & Saewyc, 2001; Gifford, 2001), and have also been identified within child welfare programs (Stuczynski & Kimmich, 2010; Garstka, Collins-Camargo, Hall, Heal, & Ensign, 2012). They may be even more prominent in the child welfare system when working with pregnant teens.

In the absence of sufficient high quality experimental and longitudinal research, practice and policy shifts often are "based on common sense, matters of fairness and justice, but lack strong evidence" (Osgood, Foster, & Courtney, 2010, p. 224) or, they are based on practice wisdom, since so little research is available on child welfare system interventions (Barth, 2008). Further complicating these issues, in a review of foster care in the United States, Bass, Shields, and Behrman (2004), concluded that it is not a cohesive system but a "combination of many overlapping and interacting agencies, all charged with providing services, financial support, or other assistance to children and their families" (p. 5). In such systems, it is difficult to conduct rigorous research that controls for confounding factors and is able to follow clients over a long period of time. Thus, not enough is known about the impact of specific interventions on the well-being of children in foster care. Regarding their transition to adulthood, "though promising directions for policy and practice are being identified, few interventions have been tested empirically" (Osgood et al., 2010, p. 224). A study in the Hawaii child welfare system (Daleiden & Chorpita, 2005) suggested that the system does not rely solely on evidence-based models, in part due to the many challenges of gathering such evidence. This study described policy decisions based on other models, individualized case conceptualization or practice-based evidence, instead. Such approaches can and should provide powerful insights from which systems can learn.

Building evidence using randomized controlled trials (RCTs) and strong quasi-experimental designs, however, remains an important goal in seeking to best serve the needs of pregnant teens in foster care. In a recent review of existing studies that specifically address pregnant and parenting youth in foster care (Svoboda, Shaw, Barth & Bright, 2012), a total of 16 published studies and unpublished reports were summarized. Five were qualitative studies with samples that ranged from three to 73 participants. Eight were descriptive, utilizing data from large national surveys, or smaller local foster care data. Two were surveys of staff. Only one study was a randomized trial that compared two different models of foster care placements. Svoboda and colleagues conclude that there is simply not enough information documenting pregnancies, abortions, adoptions, live births, and parenting among young women in foster care. None of the studies demonstrated evidence of specific programs offered to pregnant teens in foster care. Notably, a survey of 46 NYC foster care agencies (Gotbaum, 2005) concluded that less than 50% provided skills or training for youth or their foster care providers, that would aid pregnant youth in critical parenting skills for their child's safety and development.

Yet foster care agencies have a unique potential to provide prenatal medical services, counseling, programs to improve parenting success, and contraception to prevent subsequent pregnancies, to teens who become pregnant in their care or enter the system already pregnant. Thus the need

for high quality research, including RCTs, that document and measures outcomes of these types of services in the child welfare system is paramount. One such effort, which reflects on the difficulties of conducting rigorous research that would enable the development of an evidence base for such programming, is described here. A brief historical narrative is followed by a set of recommendations, based on the lessons learned from this effort.

THE NYC ADMINISTRATION FOR CHILDREN'S SERVICES (ACS) AND PREGNANT TEENS

The NYC child welfare system, since the 1940s, has provided direct care or contracted with private agencies to place children from unsafe families and homes into residential facilities or individual foster homes. By 1990, it was common practice to place teens in residential *congregate* care, since it was difficult to find individual family placements for teens. In 1999, influenced by the Casey Foundation's thought-leadership on the importance of families (Annie E. Casey Foundation, 2010), and mounting evidence that teens aging out of the system were not faring well (Freundlich, 2008), the New York City Administration for Children's Services (ACS) began several initiatives to move teens out of congregate care, as shown in Figure 1.

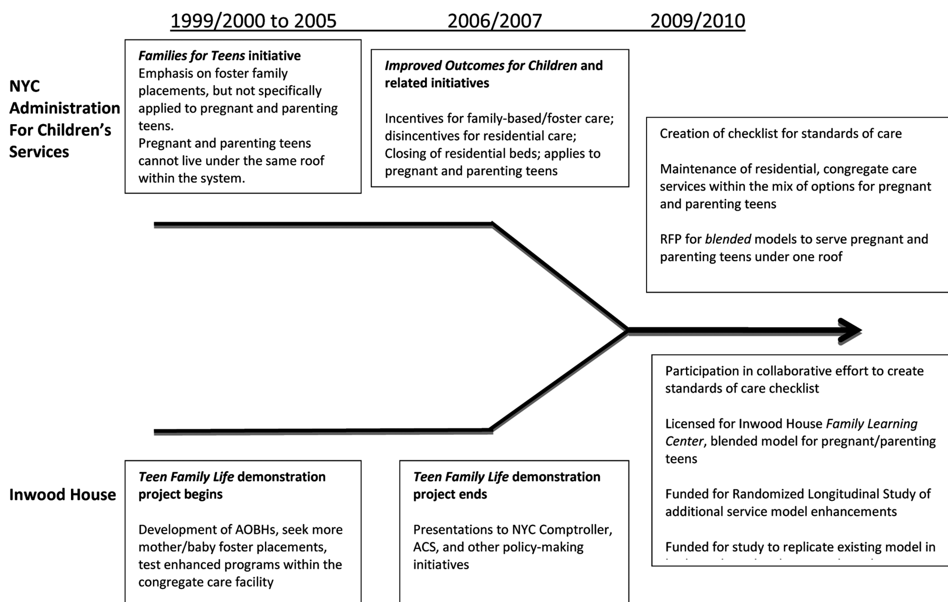

FIGURE 1 Parallel timeline of policy and practice issues in the NYC Administration for Children's Services and the Inwood House Demonstration Project, 1999–2010.

As a result, ACS eliminated 47% of residential beds system-wide between 2002 and 2008 (Child Welfare Information Gateway, 2011). By 2008, 66% of teens entering the system were placed in family settings, compared to 33% in 2002. Thus, through the lens of reducing congregate care, the effort was a success. However, while these efforts provided services at a lower cost and met the goal of family placement, no data demonstrated that they provided services that met the special needs of pregnant and parenting teens, improved permanency or reduced intergenerational foster care placement. In fact, the ACS quality assurance tools required for its contract agencies contained no measures specific to inputs or outcomes for pregnant and parenting teens.

Recognizing that pregnant teens in foster care are at greater risk than other pregnant teens, Inwood House, a contract agency of the NYC foster care system, sought and received funding for a demonstration project that would directly address and gather data about this particular population. The data were intended to inform the agency's own practice, but also to provide insight that would aid the NYC foster care system in serving this special population. The Teen Family Life (TFL) project, funded by the U.S. Department of Health and Human Services Office of Adolescent Pregnancy Programs (OAPP) took place during the same period that ACS was moving away from congregate care for pregnant teens. The TFL demonstration project offered specialized services to pregnant teens in a residential foster care setting within the NYC child welfare system, and compared them to a standard set of services offered at a similar contract agency. The paths of these separate initiatives converged in 2006, when Inwood House contributed information about the population of pregnant teens in its care, about services and implementation and about the limitations of research in this area, to the ACS policy discussions. This article discusses the case study, the lessons learned and proposes approaches which can improve the evidence for what works to meet the needs of pregnant and parenting teens in the child welfare system.

PROGRESSIVELY IMPROVING RESEARCH FOR PREGNANT TEENS IN CHILD WELFARE SYSTEMS

Building on the challenges and lessons learned in the TFL demonstration project and using illustrative experiences, we propose a model that begins with descriptive and service delivery data leading to the eventual conduct of quasi-experimental and experimental research. Simply stated, the model suggests that preliminary descriptive data, with its acknowledged limitations, builds theory for program development, sets the stage for process evaluation of service delivery and ultimately for subsequent, more rigorous, research designs. A framework depicting this progressively more rigorous process and its concomitant challenges is presented in Figure 2. Using this model, real-

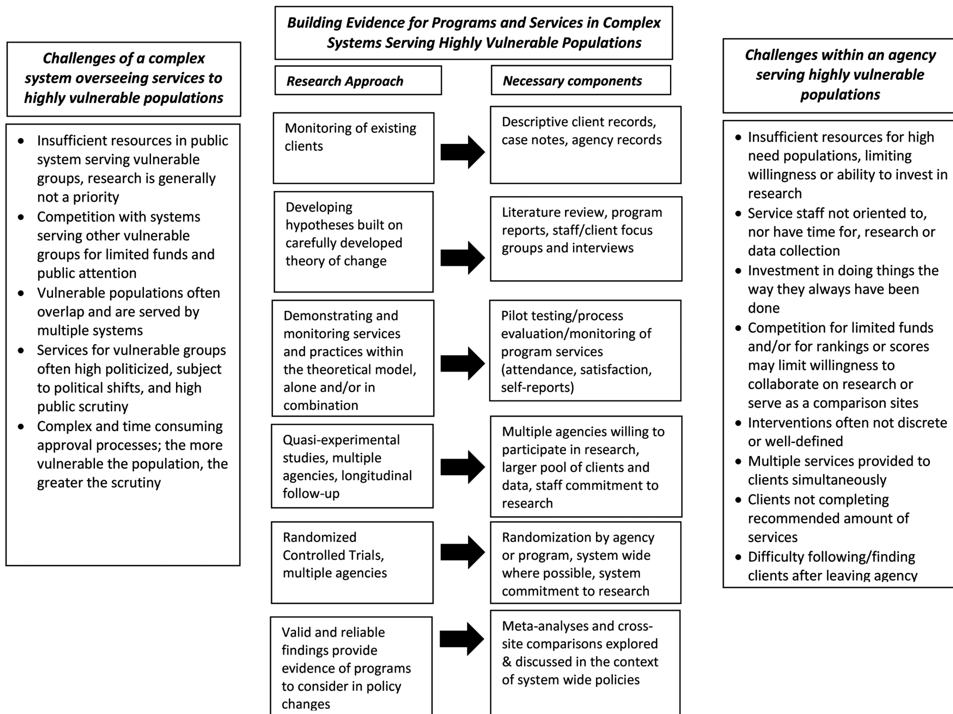

FIGURE 2 Developing evidence in complex systems serving vulnerable populations: A model informed by its challenges.

world experiences may expand to rigorous research, in contrast to a more traditional clinical model in which tightly controlled efficacy studies are then expanded to real-world effectiveness studies. The model includes four major steps: collection of descriptive data, development of a theory of change, process evaluation, and quasi-experimental or experimental research.

Descriptive Data

Research efforts should begin with preliminary, non-experimental data including qualitative and quantitative assessments of baseline characteristics, and the experiences of the service recipients within the system. This first step, documenting the nature and needs of the girls in care, provides powerful insights that can inform and improve subsequent programming and research.

The TFL demonstration data served descriptive purposes for the two agencies in the study and for ACS, which had no such data for pregnant teens in its care. For example, pretest data revealed that, of 176 girls in the study at the time they moved into the agency's congregate care *residence*, 59% had repeated at least one grade and 33% were not currently attending school. Half (51%) had been arrested at least once, 35% had been sexually molested

and 11% reported having been forced to have sex. Characteristics such as school performance or histories of sexual trauma, for example, have strong implications for their ability to comprehend, and/or participate and engage in program activities designed to influence career success or reduce sexual risk-taking. Thus, data such as these can play a critical role in developing or choosing programming for this population.

Planning Program Services With Sound Theory

Second, a *theory of change* (Organizational Research Services, 2004) that links intervention components with their desired outcomes is critical to building evidence. Such an approach enables the development of hypotheses about what works to be built on specifically identified theories. For example, the agency's theory of change was built on models of child development (Bandura, 1986; Erikson, 1976), developmental assets (Scales, 1999); bonding and attachment (Ainsworth, 1985; Benoit, 2004), mutual aid (Steinberg, 1997); and, adolescent brain development (Blakemore & Choudhury, 2006; Casey, Jones, & Hare, 2008), along with preliminary data, not just philosophy and anecdotes. This study purports that the program should articulate such a theory of change before services are offered, but can be more systematically and specifically delineated once preliminary data are available.

The TFL program and services, built into its unique *theory of change*, were based on several more traditional theories of child development (Arnett, 2000; Avery, 2011; Compass, Hinden, & Gerhardt, 1995; Fischer, 1980) identifying adolescence as a period of significant biologic and cognitive changes. Recognizing that becoming a parent during this period does not mitigate the need to address an adolescent's developmental tasks, a successful program must balance both the needs of an adolescent, (e.g., strong connections to peers and focus on identity and moral growth) with the adult tasks of parenting, (e.g., setting aside one's own needs for those of an infant). The juxtaposition of these two sets of tasks may be one of the greatest challenges of teen parenthood. Thus, through TFL, a set of core services was provided, as required by the child welfare system and/or the funding agency that addressed physical, safety, life skills, and preparation for parenting needs. These included nutrition, shelter, medical care, mental health services, independent living classes, family planning, education, consumer education, and family counseling.

In addition, however, based on the agency's theory of change, the program offered a menu of enhancements to meet the conflicting demands of both adolescence and parenthood. These enhancements included expressive therapy programs—music, dance, creative writing, drama—which were designed to draw out feelings about their own childhood and parenting models, their feelings about becoming a parent, goals for their lives, as well as to explore the physical and emotional challenges of their histories of abuse

and neglect (Brazier, 1993; Rogers, 1985). A second enhancement, the Teen Choice support groups (Steinberg, 1990, 1997), provided a mental health counselor in a peer group context to build mutual support, friendships, and meet the social and emotional needs of adolescence, while discussing issues of relationships, sexuality, contraception, and the challenges of parenthood. Career planning (including resume building, interviewing skills, and internships) addressed the teens' challenges for self-sufficiency (Sparks, 2011), in a way that recognized the limitations imposed by both their age and their parenting responsibilities. Finally, building on various types of mentoring relationships available in foster care for youth (Avery, 2011; Munson & McMillon, 2009), the TFL enhancements included a mentoring component which paired pregnant girls with a teen mother or young adult who had been a teen parent. This enhancement was designed to build peer support and meet the adolescent needs for connection with other teens, while providing role models for successful parenting.

The combination of these interventions was hypothesized to improve parenting attitudes and skills, as measured by the Adult Adolescent Parenting Inventory (AAPI; Family Development Resources, Inc., 2000); provide tools for financial independence; and improve relationships and connections to other young mothers, peers, and family members; with the ultimate goal of improving both the mothers' and babies' health and reducing the likelihood of intergenerational placement in care.

Articulating the program's theory of change, on the basis of which outcomes could be expected, was an important early phase of the demonstration project. It helped staff to communicate the nature of their work, and researchers to articulate the purpose of various measurement instruments and procedures.

Process Evaluation and Service Delivery

Following early data collection, and a theory of change, a third step in a progression toward stronger research is the process evaluation of service delivery. Monitoring program services both offered and received by the target group can include data on delivery, as well as feasibility, acceptability, and self-reported reflections by the clients, of their own perceptions of growth or change, as a result of the services.

Several challenges should be considered. For example, assuring and/or measuring program fidelity may be particularly difficult in foster care settings where staff turnover is high and where there are rarely staff positions for data collection. Furthermore, the nature of the interventions makes them difficult to quantify. Many activities performed by child welfare workers are not discrete interventions (Barth, 2008) nor prone to rigorous testing, in part, because they are not well scripted or prescribed. The Teen Choice support group, for example, a key component of the demonstration project, had an

existing guide for the social workers who conducted it. Its mutual aid support model, however, did not lend itself to specific lesson plans, and individual sessions often took unexpected directions.

In addition, residents of the agency, who are offered many programs, do not take advantage of all of them, and when they do, may not be consistent in their attendance. Measuring program fidelity is, thus, a combination of both attendance and maintenance of program protocols, requiring documentation that the program is being conducted as defined. In some settings, perhaps a traditional classroom for example, this might include observation of activities. Such observation is rarely feasible in a child welfare setting. In TFL, staff used self-reported forms to document that a service was provided or a group or session took place, and to describe program services, such as topics discussed or unique problems or issues that arose. Statistical analyses, however, used only attendance as the measure of fidelity.

Notably, consistent attendance was typically low, with few girls receiving the full complement of sessions prescribed or envisioned. Components of the intervention, such as expressive therapies, mutual aid support groups, and mentoring sessions were defined by what was believed to be a minimum amount of service, but the actual range of services received varied dramatically.

Ultimately, these data demonstrated how difficult it was to assure consistency of service delivery for this population, even when services were readily available and offered. For example, with respect to the enhancement services offered at Inwood House, only 57% of the clients actually participated in career development activities, with only 19% completing an internship, a foundation of the career services. Similarly, although 63% of the girls participated in the Teen Choice support groups, few attended more than four sessions of the program, which was initially developed as a ten session series.

In another regard, the demonstration showed that both of the residential sites were able to offer a range of services onsite, which might have been more difficult to provide in individual foster home placements. For example, both agencies had a nurse onsite, and offered parenting education, mental health counseling, and housed on-site NYC Department of Education sanctioned schools. In their nonresidential program settings, Inwood House provided similar services to pregnant teens and young families and found that fewer than 10% of those who were offered Teen Choice, expressive therapies and peer mentoring took advantage of them. Thus, even this limited set of data, where none existed previously, provided insights for individual agency practices, and proved valuable to ACS, in their discussions of the role of residential care for certain specialized populations.

Another important lesson was that, since foster care agencies are providing a range of services to their youth, it may not be possible to analyze the impact of multiple concurrent interventions. In the TFL project, the existing continuum of care was measured as a single unit, with the demonstration

designed to assess the added value of a set of program enhancements. The agency monitored attendance for all program components and could thereby measure the quantity, but not the quality, of each component. Theoretically this might have enabled analysis of outcomes, separately, for specific program services received. There was not a sufficient sample, however, to create sub-groups by amount and specific type of services received. Thus the enhancements were also measured as a single unit, despite wide variation in actual services received.

Although information about these variations helped both agencies in their program planning and in efforts to increase pregnant teens' participation, more robust measures of program fidelity, would enhance such efforts (Mowbry, Holter, Teague, & Bybee, 2003). Fidelity typically measures: a) that services are provided as recommended (e.g., offered for the sufficient number of sessions, providers are appropriately trained and planned protocols and maintained), b) that participants have the opportunity to receive them (e.g., they are recruited, and do not have barriers to attending or receiving services), and that c) that services are actually received (e.g., number of sessions, classes, appointments attended or kept). A fidelity plan also needs to describe how such frequency and quality of services will be measured (e.g., written logs, observation of staff, feedback from staff and/or participants, attendance records). The result of such measurements can be used in descriptive, as well as both qualitative and quantitative analyses of program outcomes. Further, as previously noted, such fidelity measures should be developed within the context of a logic model, a theory of change, or other plan that clearly identifies the type, intensity, frequency, and quality of specific intervention components that are being tested.

Quasi-Experimental Designs and Randomized Controlled Trials (RCTs)

These first three approaches, descriptive data, theory of change, and service delivery data, can provide the insights and impetus that lead to the study of specific practices or policies more rigorously and system-wide. That is, ultimately, these may enable engagement in quasi-experimental or, under suitable circumstances, experimental designs, either within individual agencies that have sufficient client numbers, or across multiple agencies which agree to collaborate. In the TFL demonstration study, the funding required a formal evaluation. The agency had never embarked on this type of data collection effort for its pregnant teens, and recognized the difficulties in finding appropriate comparison groups either within the agency or similar additional agencies. Internally, the project would have been virtually impossible to implement in a randomized design, since many of the intervention components were group activities and some relied on staff training, which theoretically would change staff attitudes or understanding for all of their

clients. In addition, the residential nature of the agency meant that it would be impractical, due to contamination, to provide services to some girls, but not others.

Locating an agency that was willing to participate in the research, without receiving program support (i.e., to serve as a comparison) was a major challenge at the start-up of the demonstration. Ultimately, personal connections and the promise of descriptive data convinced a similar agency of the value in their participation. This entity was another NYC foster care agency that provided residential services for pregnant girls, including the required core services, but not the enhancements of the Inwood House model. A variety of considerations led to an evaluation design which included pre- and post-test structured interviews of pregnant teens while residing at both Inwood House, and the comparison agency, with follow-up surveys of the girls at the intervention agency only.[1] Even among girls from the intervention agency, however, follow-up was challenged by their movement within and outside of the system, with limited control or information available to the agency. Thus, the research had two component designs, based on practical constraints of the system, a pre- and post-test with comparison group design and a longitudinal one-group-only design.

While a limited quasi-experimental design was the best possible choice for this project, the TFL experiences helped the agency to advocate for funds to conduct a subsequent randomized study of specific program components. Opportunities for RCTs, while limited and not always feasible, may be possible when multiple agencies are involved, and with the commitment and cooperation of the larger foster care system. Such studies can randomize clients within agencies, if contamination and staff resistance can be overcome, or randomize by agency, if a sufficient number of agencies agree to participate.

Ongoing Challenges at All Levels of the Research

Despite its best attempts, in using such a four-step process, the TFL project had many ongoing challenges, typical of research in these types of settings. For example, experimental and quasi-experimental study protocols can be particularly challenging for foster care staff, who may experience what can best be termed an *ethical tension* between providing services based on need vs. randomization or other forms of selection. The authors of this study addressed these concerns with staff from the outset to assure that they understood the purpose, process, and eventual value of engaging in research, and explaining when randomization and other forms of selection were ethical and appropriate.

Additional factors challenge longitudinal studies of pregnant teens in care. For example, they are often not in the same prenatal and post-delivery placements. In the NYC foster care system, teens who become pregnant while in care may move to a specialized maternity residence or placement

during their pregnancies, and are often moved to other places after their babies are born. For TFL, this movement outside the control of the service agency resulted in variations in the timing of enrollment (and thereby the amount of services that a girl could receive) as well as the ability to reach teens after their babies were born.

Another challenge in rigorous evaluation of program services is that desired outcomes are often diffuse and nonspecific. While birth weight, for example, is an objective measurement, determining how best to determine that a teen will be good parent is less quantifiable. In the TFL study, the standardized AAPI instrument was chosen; however, it had not been used for this population previously and measured only a limited spectrum of items likely to predict good parenting. Even a seemingly more straightforward measure of success in child welfare—maintaining custody of the child—was complicated by a system that moves the babies of teen parents in and out of their care for a variety of reasons, such as in cases of potential danger and based on space or foster parents' capacity to care for both the teen and her baby. Thus, even a decision about what constitutes maintaining custody as an outcome can be complex.

Furthermore, the population that this study sought to learn most about included a subset of girls who were minimally engaged with the system. Process measures in the TFL demonstration, suggested that girls with the most complicated histories (e.g., multiple foster care placements and extensive trauma) were often the ones who left the premises without passes, or showed up for groups or services intermittently or not at all.

Finally, in 2010, Inwood House received support for a randomized longitudinal study, funded by the U.S. Office of Adolescent Pregnancy Programs, to study several specific individual-level program enhancements that could be randomized within the agency. In addition, the agency was funded in 2011 by the NYC Community Trust to replicate and adapt its model in other foster care agencies, for teens both in and out of residential care, paving the way for comparative research on these two models across multiple child welfare agencies, serving both pregnant and parenting teens. Although the agency had the rare opportunity to conduct a RCT subsequent to the TFL demonstration, that study required multiple, successive approval processes. These processes included the NYC Administration for Children's Services, the NYS Office of Children and Family Services, two separate institutional review boards, and a collaborating agency's research committee. By the time the research actually started, ACS had modified its referral system, having moved toward a blended model of care, in which pregnant teens were housed in the same locations as teens with their babies. This shift resulted in a dramatic reduction in pregnant teens being referred to the agencies, limiting the anticipated sample size of the RCT. A system-wide commitment to research, with concomitant protocols and procedures, may have made research start-up and planning more efficient.

Agency and System-Wide Challenges for Research

While reflecting on the demonstration project overall, a number of overarching features challenge research both at individual provider agencies and in the broader system that sets policies, and regulates and/or provide funds. At the individual agency level, these include a philanthropic environment that rarely funds research, overcommitted staff and lack of staff investment in research, tendency to "do things the way they've always been done," and competition between agencies. In addition, the transience of the population, including movement from agency to agency outside of the control of individual child welfare providers, the challenges of understanding or accepting randomization and research protocols among both staff and clients, and the sensitivity of the data for this population all add to the difficulties. At the broader system level are funding constraints, public scrutiny and politicizing of the system and of the vulnerable population, and the time-consuming approval processes necessary to conduct research.

It is also important to note that vulnerable populations often overlap and are involved in multiple systems, including foster care, juvenile justice, special education, and mental health (Osgood et al., 2010), which further complicate rigorous system-wide research. Finally, and perhaps having the greatest potential to improve outcomes for this special population of young people in the child welfare system, a recent report on youth in foster care (Boonstra, 2011) concluded that "child welfare programs seldom address teen pregnancy prevention and teen pregnancy prevention initiatives seldom focus on the special needs of foster care youth" (p. 11).

Contributions to Practice and Policy at the Agencies and ACS

Within the context of its significant limitations, and with a careful eye on what could be learned, the TFL demonstration project did contribute to supporting and informing practices and policies both at the agency and in the broader NYC foster care system. Neither ACS nor the NYS Office of Children and Family Services aggregates data that describe their clients or measures outcomes for teens moving through or exiting the system. Building on a lack of information about pregnant teens within the system, this agency was able to describe the pregnant teens in its care, as well as those of the comparison agency; to document service delivery, including the consistency of their receipt of services; and to frame a set of questions and hypotheses about what kinds of services would be helpful for this group, and about the veracity of preliminary outcomes that were suggested in the study. Despite methodological limitations, the demonstration data were the most expansive on pregnant teens in NYC foster care at that time.

The descriptive data, service delivery data, and where available, outcome data were shared with program staff and administration of both the

intervention and the comparison sites. Within Inwood House, the availability of information about its clients, within the context of its service delivery model, provided new insights for staff and program administrators. For example, exploration of programmatic differences between Inwood House and the comparison site, as part of the process evaluation, revealed that all girls at the comparison agency attended the on-site NYC Department of Education school, while girls at Inwood House attended community schools, unless there was a medical or other reason that they had to attend the on-site school. A cross-sectional comparison of school attendance records and grades revealed an area of weakness for Inwood House, one that resulted in exploration of the way in which its limited on-site school services were utilized. While the study was not designed to compare on and off-site educational programs, the availability of information that had not been considered previously encouraged the agency to explore new educational support models for its clients, a spillover effect of the research.

Beyond its agency walls, the agency sought to contribute its experiences to improving success for pregnant teens in the broader foster care system by participating in both city and statewide dialogues about serving this vulnerable group. This contribution began by setting out to answer a set of questions that had not previously been asked, such as the school, trauma, sexual victimization, and foster care histories of pregnant teens in care. These descriptive data made a contribution to the larger inquiry about what works in child welfare, by naming previously unidentified needs. Furthermore, in its unique role as a residential provider, Inwood House demonstrated that teens in this particular setting were able to take advantage of a range of on-site services (e.g., regular prenatal care, parenting education, counseling, contraception, nutritional support) and thus potentially receive a higher *dosage*, at least in terms of the quantity of services, than teens outside of foster care, or foster teens in non-residential care. Thus, while there was no plan to compare residential services to other types of care, the effort did demonstrate that a comprehensive range of services could be provided in a residential setting.

In 2007, demonstration project experiences were presented to the NYC Comptroller, the Mayor's office, ACS, and the Department of Youth and Community Development. Insights were included in a 2009 report on policy recommendations for protecting and serving foster care youth in NYS (Schuyler Center for Analysis and Advocacy, 2009), which led to a strong recommendation that the system support ongoing efforts to collect accurate data on teens entering parenthood while in foster care (Governor's Children's Cabinet Task Force on Disconnected Youth, 2010).

The demonstration became part of continuing discussion within ACS about the role of residential care. In 2009, its Residential Care Plan (NYC ACS, 2009) reflected a shift in care for pregnant and parenting youth, with a move towards treatment-focused and intensive levels of congregate residen-

tial services for limited periods of time, rather than eliminating it altogether. The plan replaced "maternity shelters," separate services for pregnant teens, with blended residential programs for pregnant and parenting teens together. Financial and practical considerations were paramount in this move, however, the research was able to provide insights to the process, simply by demonstrating that its residential model served highly vulnerable youth and enabled pregnant teens to receive a variety of services because they were on site and, thereby, more accessible to service providers.

Following this shift to a blended model of care for pregnant and parenting teens, ACS initiated meetings with contracted agencies providing maternity and mother-baby residential care, which resulted in development of a set of standards, the Guide to Working with Young Parents in Out of Home Care (NYC ACS, 2010), to be used by all ACS contracted agencies. In part because of its demonstration project experience, Inwood House was one of only two foster care agencies participating in this collaborative effort that provided direct services to pregnant and parenting teens.

CONCLUSIONS

There is a limited evidence-base regarding pregnant teens in the child welfare system. This limitation is in part due to the complexities of child welfare systems themselves and to the challenges of implementing rigorous research designs that can provide such evidence. As a result, decisions are often made without the benefit of data at all.

Foster care agencies have limited funding for research, thus planning and maintaining long-term, rigorous studies is generally not a priority. This agency was in a rare position because of its demonstration funding. As a result of that initial experience with evaluation and research, the agency made a long-term commitment to internal data collection, recognizing that data could be used to improve the efficiency of programs, provide information that potential private funders sought, and monitor its own performance.

Further, as part of the continuum of developing an evidence base, the demonstration experiences provided a framework for identifying questions that the system had not yet considered; added insights to the philosophical approach that had been used previously; contributed information about the standards of care needed to serve pregnant teens; supported the idea that services provided in a residential context could potentially meet these unique needs (and thus should be further studied, rather than eliminated); and identified program and service investments that had been pilot-tested, well-received by pregnant foster youth, and had the potential to improve young families' prospects for future success.

The agency that conducted the demonstration project contributed its experiences, including some descriptive data about girls in two residential

child welfare settings, to the planning process in the NYC child welfare system. These insights included encouraging the system to monitor data that specifically addresses the number, histories, and services provided to pregnant teens in its care; and to support collaborations across its contract agencies for research purposes. Even limited studies that collect and summarize descriptive data, or monitor new programs, can set the stage for stronger, sustainable research designs, by virtue of their ability to address feasibility, implementation and potential efficacy of interventions. These are important first steps to support practices and policies for pregnant teens in complex child welfare systems. They can, in turn, be used to build support for and commitment to more rigorous studies across child welfare agencies.

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NOTE

1. Following the birth of their babies, girls were contacted when possible for a follow-up phone interview conducted by the researcher using the same interview instrument and format as pre- and post-tests. The follow-up included additional questions regarding the birth of their babies, parenting attitudes, and education, employment, legal issues, and other indicators of parent and child wellness. Interviews were conducted 6 and 12 months after their babies' birth for girls at Inwood House, but could not be conducted at the comparison site because research staff could not readily connect with clients or with program staff to maintain contact.

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