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## Family Preservation and Healthy Outcomes for Pregnant and Parenting Teens in Foster Care: The Inwood House Theory of Change

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## **Family Preservation and Healthy Outcomes for Pregnant and Parenting Teens in Foster Care: The Inwood House Theory of Change**

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*Teens in foster care give birth at more than twice the rate of other teens in the United States. Significant challenges exist for these most vulnerable teens and their babies. To preserve teens' families, programs and services need to be able to improve teens' prospects for parenting success, delay subsequent pregnancies, and reduce intergenerational placement in care. The Inwood House theory of change for pregnant and parenting teens is a roadmap for providing the range and types of services that have the potential to improve outcomes for these most vulnerable families. The theory of change builds on insights and data from a demonstration project which took place in the residential program of a New York City foster care agency, with an approach that addressed the developmental needs of adolescents and the practical needs of parenting. Inwood House's experience provided insights into the role of a theory of change focused on the development of young people, not only their protection, to improve the health and well-being of young mothers and their babies, and reduce intergenerational placement in care. Insights and data derived from this project, which reflect the challenges of research in foster care, are discussed.*

**KEYWORDS** *pregnant teens, foster care, development need, theory of change*

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## Teen Pregnancy and Birth Within the Foster Care System

More than 407,000 children younger than age 18 were in foster care in the United States in 2011 (U.S. Department of Health and Human Services [USDHHS], 2012), with some 10,963 in New York City (NYC) alone (NYC Administration for Children's Services, 2014). Approximately one third of girls in foster care become pregnant by age 17, and one half of those in care become pregnant by age 19 (Sullivan, 2009). Furthermore, a higher proportion of pregnant teens in care give birth than pregnant teens that are not in the system, estimated at a 17.2% birth rate for girls in foster care, compared to 8.2% for unmarried teenagers who are not in care (Pecora & Williams, 2003). Young adults who have been in foster care demonstrate poor outcomes with respect to employment, stability, and health (Courtney, Dworsky, Lee, & Raap, 2009). The long-term prospects for success of teens who become parents while in care may be even bleaker than for other teens in care.

Most teen pregnancy prevention initiatives have not focused on special needs of foster care youth (Boonstra, 2011), and teen pregnancy presents multiple challenges for child welfare programs. The foster care system has to provide services and programming that seek to prevent pregnancy, while addressing the critical needs for those who are or become pregnant while in care. These include services that address the additional medical and emotional needs of teens who are or become pregnant in care and that address the increased likelihood of intergenerational placement; children of those in care are themselves more likely to be placed in care (Schuyler Center for Analysis and Advocacy, 2009).

## Foster Care Systems and Their Ability to Meet These Needs

In attempting to meet teens' intensive needs, it is important to recognize that the focus of child welfare systems has traditionally been on protection of youth and less so on their growth and development. Child welfare agencies are charged with ensuring the safety, permanency, and well-being of children who have been abused or neglected or are at risk of abuse or neglect, through a range of services (De Vooght, Allen, & Green, 2009). Foster care systems generally do not see their role as "raising" children because they expect and desire that foster care is only temporary for young people living in unsafe homes or circumstances. In the United States, however, the average length of stay for those exiting foster care in 2012 was 13.4 months (USDHHS, 2013), with 15% of those in care staying for 3 years or more, thereby likely to be spanning critical developmental periods for youth. Furthermore, teens who come into the system are less likely to be either adopted or living with relatives than are younger children (Wulczyn, Chen, & Hislop, 2007), setting them up for potentially longer stays in foster care. Given teens' increased risk of pregnancy over teens who are not in care, it is paramount for the child

welfare system to engage in pregnancy prevention efforts, while addressing teens' needs during pregnancy and their preparation for parenthood.

### Contextual Factors That Define and Affect Young Women's Experiences and Outcomes

Two contextual factors affect the potential for success of young people in foster care who give birth. First, as identified by Erikson (1976) and others (Compass, Hinden, & Gerhardt, 1995), the tasks of adolescent development are often in conflict with the tasks of parenting. The normal developmental phase where teens tend to focus on themselves and their emerging identity and independence (Arnett, 2000) may be in direct conflict with the parenting role of parenting, requiring them to put the needs of a baby before their own. No matter what their life circumstance whether they have been in foster care, teens that happen to be pregnant and parenting are themselves still engaged in the critical developmental tasks of adolescence. Teaching such teens how to "parent" requires an expectation of adult behaviors and decision-making processes from adolescents whose own brains may not yet be fully developed (Blakemore & Choudhury, 2006; Casey, Jones, & Hare, 2008; L. A. Steinberg, 2009).

In short, adolescence is a period of significant biologic and cognitive changes (Fischer, 1980), and becoming a parent during this period does not mitigate the need to address these developmental tasks. Thus, a successful program must balance the developmental needs of adolescents, for example, strong connections to peers and focus on identity and moral growth, with the adult tasks of parenting, for example, setting aside one's own needs for those of an infant. The juxtaposition of these two sets of tasks may be the greatest challenge of teen parenthood (see Table 1).

Second, the overwhelming majority of pregnant girls in care are likely to enter with significant emotional and educational challenges. Furthermore, they have likely not experienced healthy nurturing parenting and/or have not been in the kinds of environments that can address these emotional and mental health needs. These factors have great implications for young people in the system who are about to become parents and desire to be different kind of parents than their own. Data from Inwood House's (IH) Teen Family Life program (Lieberman, 2005) suggested that girls who came into care had high rates of abuse and neglect, histories of trauma, legal involvement, and poor academic performance. More recent agency data suggests that young people served by the agency are increasingly arriving with additional challenges, such as mental health diagnoses. In 2010, for example, the mean score on the Beck Depression Inventory (Beck, Steer, & Carbin, 1988) for girls entering IH demonstrated a "severe" level of depression, and three fourths of the girls entering the residence were referred for mental health testing and/or counseling on the basis of intake assessments (Inwood

**TABLE 1** Pregnant and Parenting Teens Live in Two Worlds: Examples of the Needs of Adolescents and the Tasks of Parenthood

Adolescent Needs		Parental Tasks
Opportunities to explore own social, emotional, and sexual identity	➔	Understanding and responding to baby's cues for emotional and physical needs
Adequate food, housing, and medical care	➔	Providing adequate food, housing, and medical care
Adjusting to profound physical changes	➔	Providing cognitive and social stimulation and monitoring baby's physical and developmental changes
Consistent nurturing	➔	Providing nurturance
Supportive guidance	➔	Providing supportive guidance
Clear boundaries and high expectations	➔	Setting clear boundaries and expectations for a baby/child
Mastery of their own skills and creative expression	➔	Preparing a child for school
Safe environment	➔	Creating a safe environment for a baby/child

House, 2011). Out of this complex and often conflicting set of circumstances and needs, a continuum of care needed to be designed that would help young people make a successful transition from pregnant teen to parenting young adult.

This continuum took many factors into account, ultimately speaking to larger issues for teen mothers. For example, children born to adolescent parents tend to become victims of abuse and neglect, thus increasing the risk of being placed into foster care (Lachance, Burrus, & Scott, 2012). Fathers' involvement, even before babies are born, is linked to strong coparenting alliances and father engagement in baby's life (Fagan, 2014), and a young mother is less likely to drop out of school if her child's father is present in her baby's and her life (Teen Parent Child Care Quality Improvement Project, 2005). Parenting services within maternal group homes have the potential to vastly improve long-term outcomes for young mothers, enhance self-esteem, and decrease stress (Cox, Buman, Woods, Famakinwa, & Harris, 2012). With respect to mental health, pregnancy itself is a serious psychosocial stressor for adolescents. Pregnant young people may experience feelings of guilt, anger, and denial (Mollborn & Morningstar, 2009), and first teen pregnancies are frequently associated with anxiety, depression, aggression, and a traumatic or abusive childhood (Crittenden, Boris, Rice, Taylor, & Olds, 2009). The effects of depression stemming from pregnancy during adolescence can

last well into adulthood (Collingwood, 2010). Finally placement in the foster care system may itself precipitate mental health problems (McMillen & Raghavan, 2009), with some estimates suggesting that more than one half of all young people in foster care meet the full diagnostic criteria for one or more mental disorders (Tausig & Culhane, 2010). Babies born to mothers whose mental health is compromised are likely to experience an array of long-term psychological, psychosocial, and behavioral problems that may persist beyond childhood (Najman et al., 2000; Weissman & Jenson, 2002). By contrast, presence of strong social support is associated with a reduction in depressive symptoms over time among adolescent mothers (Brown, Harris, Woods, Buman, & Cox, 2012). The themes of these and other studies are woven throughout the IH's services and model .

## THE INWOOD HOUSE CONTINUUM OF CARE

Since 1830, IH has served pregnant and parenting young women. In the 1960s the agency contracted with the City of New York's foster care system to serve pregnant and parenting teens at IH maternity residences and in its foster family homes. In its residential programs, IH has served approximately 80 pregnant teens per year. Recently the agency renovated its residence to accommodate mothers and children, as well as pregnant teens. The residence now serves approximately 35 to 40 pregnant teens and 10 parenting teens with their babies annually. IH's continuum of care model, which serves pregnant and parenting teens in residential and foster care, was designed with the conflicting needs and developmental tasks of adolescence and parenthood.

In 1995, IH was awarded a grant from the U.S. Office of Adolescent Pregnancy Programs to enhance its existing continuum of care. Eventually, the lessons learned from the demonstration project yielded changes in IH programming and contributed to practice recommendations within the NYC Administration for Children's Services. Ongoing experiences within the continuum of care, along with data from the federally funded demonstration project, eventually led to the formal development of the IH theory of change (TOC). A theory of change (Organizational Research Services, 2004) is a blueprint that explains how key program elements are used to produce a desired outcome or change. IH's TOC endeavors to answer the question: "How can we help them to make a successful transition to adulthood and be a different kind of parent than what their own experiences have been?" by designing programs and services that work to overcome the circumstances that have already defined their ideas about parenting.

The continuum of care's services and programs address three objectives: to improve parenting attitudes and skills, provide tools for financial independence, and improve relationships and connections to other young mothers, peers, and family members. Together, the objectives address the

ultimate goals of improving the health and well-being of mothers and babies and increasing permanency for and between the teen mother and her baby. These ultimately have the potential to address the seemingly intransient cycles of poverty and infant mortality.

The core services, in accordance with contractual requirements of the foster care system, include nutrition, shelter, medical care, mental health counseling, independent living classes, family planning, educational support, and permanency and family counseling. Enhancements to this core were designed to address the conflicting demands of parenthood and adolescence and to strengthen outcomes in maternal and baby health, mental health, education, employability, and youth development (Leffert et al., 1998; Resnick et al., 1997; Scales, 1999). Enhancements included:

- Expressive therapy programs (music, dance, creative writing, drama) (Bandura, 1986; Brazier, 1993; Keith & Perkins, 1995; Rogers, 1985) help to draw out feelings about their own childhood, parenting, and the physical and emotional challenges of their histories of abuse and neglect and to create new models for parenting and goals for their lives.
- Teen Choice (D. M. Steinberg, 1990, 1997; Lieberman, Gray, Wier, Fiorentino, & Maloney, 2000; Lieberman & Maloney, 2000) is an evidence-informed pregnancy and HIV/STD prevention education program, facilitated by a trained social worker to develop critical thinking and communication skills for negotiation, provide comprehensive family life and reproductive health education, build positive peer support, challenge the stereotypes of youth culture, and acquire the knowledge, skills, and confidence they need to set future goals.
- Career planning addresses teens' challenges to self-sufficiency, including resume building, interview skills, and paid and unpaid internships; as well as Financial Literacy and Empowerment Education (FLEE) (Sparks, 2011). FLEE is a staff and youth training model that helps to meet teens' self-sufficiency needs by developing skills to earn, save, and build wealth and to teach these skills to their own children.
- Maternal Health and Parenting Support workshops and resources help youth acquire key information about their bodies, pre- and postlabor, the parenting role, and babies' physical and emotional needs.
- DOULA Matching Program offers customized mentoring by a trained labor support professional who provides physical, emotional, and informational support to the mother before, during, and just after birth, and emotional and practical support during the postpartum period.
- Peer Mentoring matches pregnant teens with young adult parenting teen role models.
- SPIN Video Home Training Program (Connors, Whiteside-Mansell, Deere, & Edwards, 2006; Pease, Colpa, Proulz, & Boss, 2004) focuses on strengths



of the parenting adolescent, capturing and building on videos of positive parenting interactions between the young mother and her baby. SPIN takes place in a series of sessions over the first 11 months of the baby's life. They may include the baby's father, supportive caregivers, and the teen's foster and birth parents to enhance parent-child communication, attachment, and bonding.

- Intensive mental health services include mental health assessments and referral for psychological testing and intensive mental health counseling as needed. Psychological functioning is assessed with the Beck Depression Inventory (BDI) and the Beck Anxiety Inventory (BAI). Teens meet weekly for counseling with their social workers and, when required, receive counseling and psychotherapy with a Licensed Clinical Social Worker (LCSW)-level professional.

## METHOD

### The Demonstration Project Model

In a child welfare system where a maternity residence has no responsibility for placing girls after the birth of their babies, IH had very limited information about its clients once they had their babies. Although the continuum of care was designed to improve prospects for parenting success, following parents had previously not been feasible. In 1995, IH was awarded a demonstration grant by the US Office of Population Affairs to conduct and evaluate enhancements to the continuum of care. From 1995 to 2000, an external evaluator provided data that was previously unavailable in the NYC child welfare system, describing and documenting the experiences of pregnant and parenting teens while in care.

### Study Design

The demonstration used pretest/posttest, face-to-face, structured interviews of pregnant teens at IH and another NYC Administration for Children's Services (ACS) contract agency, which offered the core services but not the enhancements. IH girls, for whom contact information was available, were interviewed by phone at 6 and 12 months after their babies' birth to gather information on their longer term markers of success. The study used an in-depth structured interview, gathering data on outcomes related to health; educational achievement; employment; parenting skills, baby health, and well-being; as well as relationships with their peers, their biological families, and other support systems. Pregnant teens were eligible for the study if they were age 18 years of age or younger and were referred to the agency prior to their 8th month of pregnancy. Thus, the research had

two component designs to learn as much as possible within the practical constraints of the system, a pre–post with comparison group design, and a longitudinal one-group-only design.

### Sample Characteristics

Pretest interviews were completed by 130 IH and 103 comparison teens when they entered the residences. Posttests were completed by 85 and 70 teens, with retention rates of 65% and 70%, respectively. For the IH sample, 55 (42%) of the teens were able to be reached for the 6-month telephone follow-up, and 27 (21%) at the 12-month follow-up. These numbers reflect one of the greatest challenges of conducting rigorous research in foster care, that is, long-term follow-up in a population that moves often, within a system that provides no resources for tracking children once they leave the agency's care. An additional challenge was that the girls were referred to the agency at varying times in their pregnancies, thereby varying the length or quantity of services received.

IH and comparison group girls were similar on age at intake ( $M = 16.8$ ), age at first foster care placement ( $M = 11.8$ ), weeks of gestation at intake ( $M = 20$ ), age at first sex ( $M = 14.2$ ), repeating a grade ( $M = 56\%$ ), current grade in school ( $M = 9.6$ ), to have ever held a job ( $M = 61\%$ ), or to have been born in the United States ( $M = 84\%$ ). IH girls were more likely ( $p < .01$ ) to report having ever been arrested (49%) and to be African American (52%) than the comparison group ( $p < .001$ ).

Records reviews for girls at each site confirmed that pregnant teens were receiving core services at both sites, whereas the enhanced services were only received at IH. As noted, weeks of gestation at pretest varied, from 5 to 31 weeks. With few exceptions, girls remained until their babies were born, yielding a mean length of stay of 20 weeks.

Longitudinal studies typically find that the clients located at long-term follow-up points are often the ones who were faring better at the outset of the study, making them systematically different from the original sample. The IH data suggested, but could not confirm, that the girls reached for 6- and 12-month follow-ups were not systematically different from those in the original pretest/posttest sample. Although, at the pretest, they appeared better on some measures, on others they were more troubled and vulnerable. To that extent, the longitudinal subsample was diverse but not necessarily representative of the larger group of IH girls in the study.

Despite the best attempts to design and conduct a rigorous study, the constraints of the foster care system created a variety of challenges, such as significant limitations in long-term follow-up and smaller than anticipated sample size. These challenges notwithstanding, the data from the demonstration project were the only data available on a specific group of pregnant and parenting teens within the NYC foster care system at that time (Lieberman, Bryant, Boyce, & Beresford, 2014).

## Interview Protocol

The pre- and posttests were administered on paper, with a data collector reading the questions aloud and assisting with completion, when needed. Variables tested included information about the girls' foster care and life histories; specific services they received; educational information; including current school status, recent grades, and school attendance; as well as scales that measured self-efficacy, self-esteem, and parenting attitudes. The Self-Esteem Scale ( $\alpha = .74$ ) was a modified version of the 10 item Rosenberg Self-esteem Scale (Rosenberg, 1991), using wording that was more familiar to adolescents. Individual items and assessments of self-worth and empowerment were developed for previous evaluations of the Teen Choice prevention program (Lieberman et al, 2000; Lieberman, Subin, & Gray, 1997). Taken from NYC High School AIDS Evaluation Study (Guttmacher et al., 1997), the self-efficacy scale ( $\alpha = .81$ ) measured perceptions about their abilities to say *no* to sex under a variety of circumstances. The Adult Adolescent Parent Inventory (AAPI) (Family Development Resources, 2009) is a validated instrument used among a variety of teen parenting programs, and includes three subscales: parenting empathy, parenting expectations, and parenting roles, to assess adolescent parenting attitudes.

## Data Collection

The researcher reached out to each girl within 2 weeks of entry to IH to conduct baseline interviews. The researcher visited the comparison site twice per month to recruit and interview new residents. Girls eligible for the study had to be in their 7th month of pregnancy or earlier, to assure that they would receive agency services for 2 months or more. Posttest interviews took place at the residences, 1 to 2 weeks prior to the girls' projected due dates. This schedule was necessary because the agency was not licensed to house girls with their babies, thus girls were moved to other foster care placements after delivery. Access to girls at posttest data would have therefore been limited. IH maintained a full-time data collection/research staff under the direction of an independent research consultant who guided the data collection procedures and interview protocols. Teens in the study received gift cards each time that they completed an interview. Because girls arrived at the residence at varying points of their pregnancies, the time between pretest and posttest varied.

## Data Analysis

Data were first analyzed using descriptive statistics, i.e. frequencies, percentages, means. We conducted *t* tests of differences at pretest between the sites, and then *t* tests of differences between groups in change scores

from pre- to posttest. Intervention and comparison agency records were reviewed to determine that the core services were offered at both locations and that enhanced intervention services were at IH. A series of Pearson's  $r$  correlations between services received and pretest to posttest change scores were used to determine if the number, or "dosage" of various activities were related to change in selected items and scales among the IH girls. For the long-term sample, data were imputed for missing cases, to estimate the status of various measures at 6 and 12 months for the IH girls only. These were compared with existing statistics for NYC teens and teens in foster care, when available.

## RESULTS

Two-tailed paired sample  $t$  tests reflected improvements ( $p < .000$ ) from pre- to posttest at IH and the comparison site on self-esteem, empowerment, self-efficacy, quality of relationships with peers, and AAPI parenting empathy and parenting roles measures, likely reflecting maturation and provision of the core services at both agencies. Measures of items reflective of the IH enhancements improved from pre- to posttest ( $p < .05$ ) at IH, but not in the comparison group: career development services (i.e., having a resume, having experienced an internship and/or job interview) and items more broadly associated with the Teen Choice mutual aid support groups that focused on sexual and mental health (i.e., identifying that they had someone to talk to about sex, indicating a relationship with at least one supportive adult, a sense of pride in their own culture and race, enhanced relationships with girls their own age, and intentions to use birth control). There were trends ( $p < .10$ ) at IH, but not the comparison group, in improved relationships with peers, and frequency of visits with family and with the baby's father.

Analysis of the association between service dosage and change scores suggested that total staff contacts were significantly associated with better outcome scores on AAPI parenting empathy ( $p < .01$ ) and parenting roles ( $p < .01$ ). Higher group attendance for Teen Choice and other parenting classes/groups was associated with improvements in sense of personal empowerment ( $p < .01$ ), self-efficacy to engage in safer sex practices ( $p < .01$ ), and AAPI parenting expectations ( $p < .05$ ) and parenting roles ( $p < .05$ ). Follow-up interviews were conducted among the available sub-sample of IH girls. At the 6-month point, 96% retained custody of their babies, 86% were in school and/or employed, 89% were utilizing appropriate medical care for their babies, and 96% were still in contact with the baby's father. Among the smaller 12-month subsample, these percentages were nearly identical.

## DISCUSSION

The demonstration project and subsequent ongoing data collection at IH provided information that had previously been unavailable about this particularly vulnerable and hard-to-reach population. The data suggested that residential settings were able to provide a wide range of services onsite that may have been more difficult to provide in private foster home placements. Girls at both residential care sites improved and matured on a range of outcomes. Finally, the enhanced interventions at IH appeared to contribute to improvements in targeted areas, such as job skills and resources, parenting empathy, receipt of birth control, and relationships with supportive adults, peers, and family members, all of which had the potential to improve vocational and parenting success.

Following the demonstration project, as a result of the insights and implications of this work, IH continued to monitor and evaluate its interventions. Overall, recognition of the importance of mental health concerns on potential parenting success and financial stability and data monitoring service dosage (largely driven by length of stay) from the agency's initial demonstration project led to greater commitment to research and evaluation. For example, recognition that more and more of its girls appeared to be arriving with mental health challenges, the agency has paid particular attention to mental health outcomes. Using the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2013) criteria, three fourths of the girls at entry are identified for further psychological testing, provided mental health services as needed, and reassessed before their babies are delivered. Recent data have demonstrated improvements in depression and anxiety measures from intake to discharge among all teens that stayed in the residence for at least 45 days.

### Inwood House Theory of Change

Ultimately, the most important outcome of the demonstration project and the agency's ongoing data monitoring was the creation of its theory of change (TOC) (see [Figure 1](#)). The TOC defined services in terms of what would theoretically and practically lead to the desired outcome for its young clients, with the benefit of data that had previously been unavailable within the foster care system. The TOC provides an outcomes-based framework for breaking cycles of infant mortality, poverty, and intergenerational placement into foster care. It was built on the IH service and program evaluation data described here, discussions among a group of agencies which had been part of a mother-child consortium of service providers in New York City, and on a review of the literature about the links among parenting attitudes and skills, education and career skills and resources, reproductive health

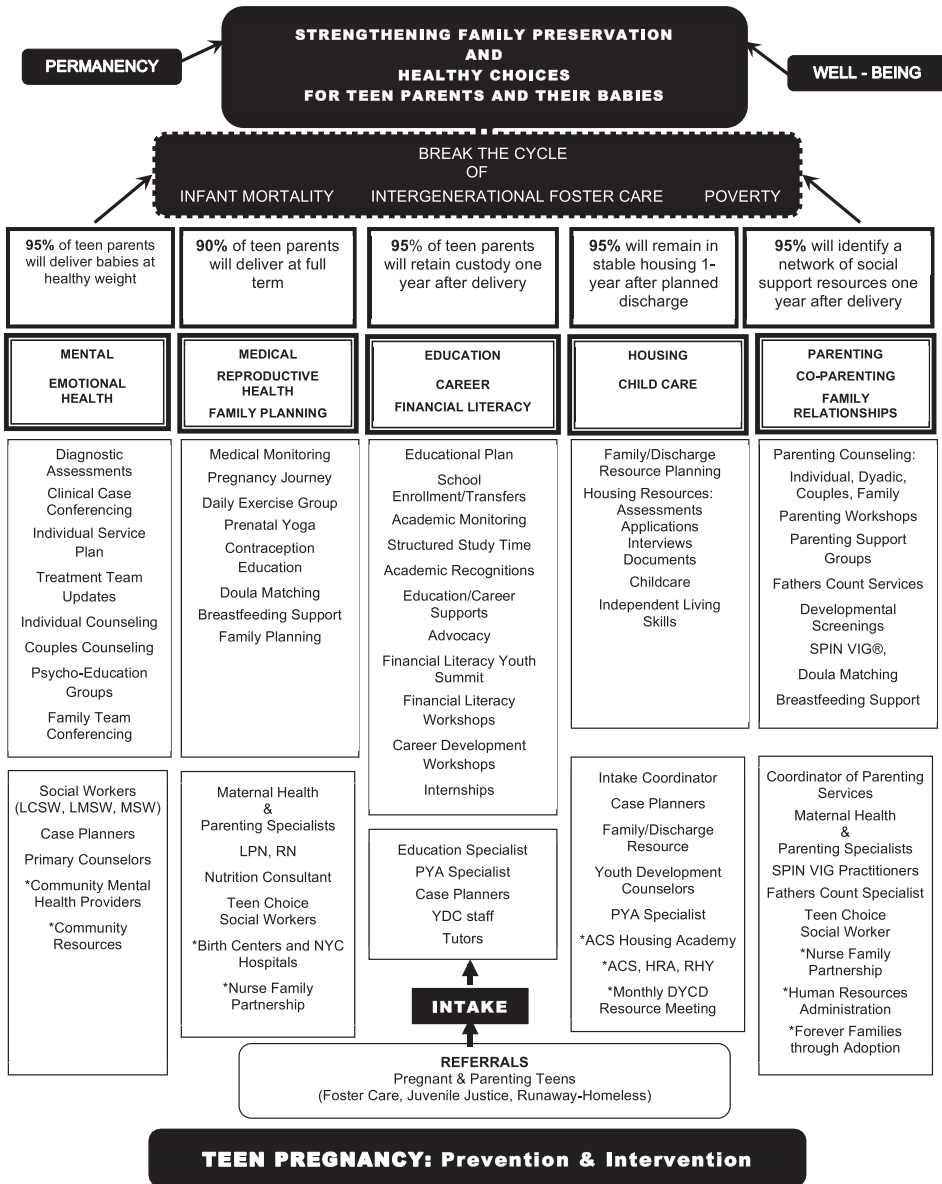


FIGURE 1 Inwood House theory of change.

services, mental and emotional health support during pregnancy and early parenthood, as well as availability of housing and child care resources, with longer-term outcomes of family success.

Underlying the TOC is its youth development framework (Dotterweich, 2006), focusing on building strengths and skills within the context of an emotionally and physically supportive environment. The model is driven by the

links between adolescent development milestones and parenting milestones. Pregnant and parenting youth services are provided in five key areas: mental and emotional health; medical, reproductive health, and family planning; education, career development, and financial literacy; housing and child care services; and parenting, coparenting, and family relationships. Across each of these service areas, program activities are designed to provide critical information and opportunities to practice and develop skills necessary to achieve specific goals.

At the onset of services, mental health providers assess and stabilize youths' mental, emotional and physical/safety needs when they enter the agency. Considered a key component for successful transition to parenthood, the model also provides support and encouragement for pregnant teens to participate in their permanency plan by co-creating goals associated with education, birth, parenting, housing, career development, and family planning. Youth engagement at all points in the transitional process is an essential component for successful application of the TOC.

Their complicated histories of trauma, abuse, a host of unmet needs (Sarri & Phillips, 2004; Schulyer Center for Analysis and Advocacy, 2009, 2010), and their oft-reported feelings of loneliness, rejection, stigma, and lack of trust (Knight, Chase, & Aggleton, 2006) make this a particularly vulnerable group with resource-intensive needs. The TOC addresses the multitude of needs experienced by youth in care. Specific services identified in the model, dependent on the setting, are either provided or by referral.

For teens in its residential and nonresidential settings, IH is essentially a one-stop service delivery model offering peer and professional support, 24 hours per day in the residential setting, and removing barriers for inclusion of the father of the baby, biological family, and other community supports. Such social supports are particularly essential for the health and well-being of the young mother and baby as they transition out of either the residential or family setting (Barn & Mantovani, 2007; Ward & Turner, 2007). This type of model offers stability, security, and support to enable youth in foster care to process their past, address their most basic needs, and redefine plans for their futures and the well-being of their babies.

Critical to implementation of the TOC is that it takes place within a "teen family friendly" culture, which addresses and accepts their adolescent developmental needs, such as the importance of education on sex and relationships (Knight et al., 2006). At the same time, it is a culture that recognizes the milestones and expectations they have "missed" by becoming pregnant while a teen. For example, the Welcome Gift Basket that pregnant teens receive at intake includes baby items, a baby's first-year book, a "what-to-expect" book, and other items that celebrate their role as mothers-to-be. This type of celebration is an expectation that is typical of pregnancy but is often overlooked when teens become pregnant, particularly those without

healthy, supportive relationships with their own parents. In the developmental approach, this absence of judgment allows teens to focus on the challenges at hand and on building a future in an environment where it is safe to admit that they are scared or overwhelmed. Others (Dworsky & Meehan, 2012; Knight & Chase, 2006) identified the critical importance of the emotional influences surrounding pregnancy and the special need for support during pregnancy, often overlooked when a teen is pregnant in care. In such a supportive environment, they are able to plan for their futures and that of their babies, without the negative judgments about their circumstances that typically abound. Further, the environment is specifically focused on addressing the complex and sometimes conflicting set of developmental and parenting needs in a way that has the potential to improve their success in building their own new families.

Ultimately, the goals of the agency expressed in its TOC are the much larger and longer-term reductions in the cycles that continue to result in poverty, high infant mortality, and intergenerational placement in foster care. Individually the TOC interventions cannot likely achieve such lofty outcomes. However, the model includes a broad range of services focusing on areas such as: financial stability (e.g., education and career development services, financial literacy program); encouraging and supporting connections with fathers, biological parents, and with other young mothers (mentoring programs, involvement of young fathers in activities, etc.); mental health services and counseling (support groups, individual counseling and referral, Teen Choice); birth spacing and choices about subsequent pregnancies (birth control, reproductive health support and information through medical and Teen Choice services); and improving parenting skills and reducing likelihood of abuse (video training, support groups, doula matching, etc.). Together, they are designed to address the many factors associated with the much larger, seemingly intransient, goals.

## CONCLUSIONS

### Limitations

Designed to demonstrate the added value of a set of enhancements to the ACS-required core services, the research was limited by a quasi-experimental design using only two sites (i.e., foster care maternity residences are few, could not be randomized, and it was challenging to garner the agreement of more than one agency to serve as a comparison site); longitudinal follow-up for this difficult-to-track population; and integrating research and data collection into the substantial workload of program staff. Differential attrition and varying pre- to posttest intervals further challenged the research. Such challenges, particularly longitudinal follow-up and varied testing intervals,



are outside of the control of the agencies, which do not have responsibility for who gets referred to the agency or for discharge planning. These limitations created challenges in data analysis and in determining the veracity of conclusions that could be drawn from the data themselves. The data, however, combined with the insights of agency staff, provided important understanding about the lives of these most vulnerable youth, about what could and could not be offered in a residential setting, and provided limited support for the success of particular interventions. Within the context of these significant limitations, what could be learned from admittedly imperfect research contributed to supporting and informing practices and policies, at the intervention and comparison agencies, as well as in the broader NYC foster care system.

### The Need for a Theory of the Change That Addresses Teen Pregnancy in the System at Large

A TOC provides a framework for a promising model to breaking cycles of infant mortality, poverty, and intergenerational placement into foster care. The IH TOC was designed to lay out a road map for thoughtful, developmentally appropriate interventions, in the context of the conflicting demands of adolescence and parenting, and the additional burden of mental health and emotional challenges characteristic of many teens in care. It is important, however, to return to a third context of these programs, that is, that they occur within a larger system, one that typically does not have its own articulated “theory of change” to guide interventions with pregnant and parenting teens. This is in part because the historical and primary role and goal of child welfare has been to protect children from abuse or neglect, rather than to contribute to child development over the long term. There has been a historical tension (Schene, 1998) between the child welfare system role of investigating reported child abuse/neglect and ensuring child safety by removing children from homes deemed unsafe (i.e., a protective function), and that of promoting child well-being and strengthening families (i.e., a developmental function). Federal funds overwhelmingly support the protective function, especially foster care placement (Courtney, 1998).

This presents a special challenge for IH and other agencies that seek to provide care to this most vulnerable group. That is, can they integrate a developmental TOC for pregnant and parenting teens into the larger foster care system, whose broader mandate is to protect all children? Such a broad mandate for all children makes it more difficult to meet the particularly intensive needs of the unique subgroup of children who are pregnant and parenting. Yet, in many ways, this may be its most important subgroup, because it has the potential to fulfill the wider protection goal by keeping a second generation of babies in safe, nurturing homes. A developmental

approach, driven by theory, which offers a continuum of services, from pregnancy prevention to prenatal care to parenting, with career, education, and mental health support, has the potential to strengthen the entire system, to improve lifelong outcomes for teen parents and their babies and ultimately prevent intergenerational placement in care.

## REFERENCES

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders, fifth edition (DSM-5®)*. Arlington, VA: American Psychiatric Publishing.
- Arnett, J. J. (2000). Teen identity development emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*(5), 469–480.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Barn, R., & Mantovani, N. (2007). Young mothers and the care system: Contextualizing risk and vulnerability. *British Journal of Social Work*, *37*, 225–243.
- Beck, A. T., Steer, R. A., & Carbin, M. G. (1988). Psychometric properties of the beck depression inventory: Twenty five years of evaluation. *Clinical Psychology Review*, *8*(1), 77–100.
- Blakemore, S. J., & Choudhury, S. (2006). Development of the adolescent brain: Implications for executive function and social cognition. *Journal of Child Psychology and Psychiatry*, *47*(3/4), 296–312.
- Boonstra, H. D. (2011). *Teen pregnancy among young women in foster care: A primer* (Guttmacher Policy Review). New York, NY: Guttmacher Institute.
- Brazier, D. (1993). *Beyond Carl Rogers: Towards a psychotherapy for the 21st century*. London, England: Constable Publishing.
- Brown, J. D., Harris, S. K., Woods, E. R., Buman, M. P., & Cox, J. E. (2012). Longitudinal study of depressive symptoms and social support in adolescent mothers. *Maternal and Child Health Journal*, *16*, 894–901.
- Casey, B. J., Jones, R. M., & Hare, T. A. (2008). The adolescent brain. *Annals of the New York Academy of Sciences*, *1124*, 111–126.
- Collingwood, J. (2010). *Depression and teenage pregnancy*. Retrieved from <http://psychcentral.com/lob/depression-and-teenage-pregnancy/0003965>
- Compas, B. E., Hinden, B. R., & Gerhardt, C. A. (1995). Adolescent development: Pathways and processes of risk and resilience. *Annual Review of Psychology*, *44*, 265–293.
- Connors, N. A., Whiteside-Mansell, L., Deere, L. D., & Edwards, T. (2006). Measuring the potential for child maltreatment: The reliability and validity of the Adult Adolescent Parenting Inventory-2. *Child Abuse and Neglect*, *30*, 39–53.
- Courtney, M. (1998). The costs of child protection in the context of welfare reform. *The Future of Children: Protecting Children from Abuse and Neglect*, *8*(1), 88–113.

- Courtney, M., Dworsky, A., Lee, J., & Raap, M. (2009). *Midwest evaluation of the adult functioning of former foster youth: Outcomes at age 23 and 24*. Chicago, IL: University of Chicago, Chapin Hall. Retrieved from [www.chapinhall.org/sites/default/files/Midwest\\_Study\\_Age\\_23\\_24.pdf](http://www.chapinhall.org/sites/default/files/Midwest_Study_Age_23_24.pdf)
- Cox, J. E., Buman, M. P., Woods, E. R., Famakinwa, O., & Harris, S. K. (2012). Evaluation of Raising Adolescent Families Together Program: A medical home for adolescent mother and their children. *American Journal of Public Health, 102*, 1879–1885.
- Crittenden, C. P., Boris, N. W., Rice, J. C., Taylor, C. A., & Olds, D. L. (2009). The role of mental health factors, behavioral factors, and past experiences in the prediction of rapid repeat pregnancy in adolescence. *Journal of Adolescent Health, 44*, 25–32.
- DeVooght, K., Allen, T., & Green, R. (2009). *Federal, state, and local spending to address child abuse and neglect in SFY 2006*. Washington, DC: Child Trends. Retrieved from [http://www.childtrends.org/Files/Child\\_Trends-2009\\_02\\_17\\_FR\\_CWFinancePaper.pdf](http://www.childtrends.org/Files/Child_Trends-2009_02_17_FR_CWFinancePaper.pdf)
- Dotterweich, J. (2006). *Positive youth development resource manual*. Ithaca, NY: Cornell University Family Development Center, ACT for Youth Upstate Center of Excellence.
- Dworsky, A., & Meehan, P. (2012). The parenting experiences of homeless adolescent mothers and mothers-to-be: Perspectives from a shelter sample. *Children and Youth Services Review, 34*(10), 2117–2122.
- Erickson, E. H. (1976). *Identity youth and crisis*. New York, NY: WW Norton & Co.
- Fagan, J. (2014). Adolescent parents' partner conflict and parenting alliance, fathers' prenatal involvement, and fathers' engagement with infants. *Journal of Family Issues, 35*(11), 1415–1439.
- Family Development Resources Inc. (2009). *Assessing parenting. Adult Adolescent Parenting Inventory-version 2 (AAPI-2)*. Retrieved from <https://www.assessingparenting.com/assessment/aapi>
- Fischer, K. W. (1980). A theory of cognitive development: the control and construction of hierarchies of skills. *Psychological Review, 87*, 477–531.
- Guttmacher, S., Lieberman, L., Ward, D., Freudenberg, N., Radosh, A., & DesJarlais, D. (1997). Condom availability in New York City public high schools: Relationships to condom use and sexual behavior. *American Journal of Public Health, 87*(9), 1427–1433.
- Inwood House. (2011). *Progress to the Robin Hood Foundation on mental health and related services to pregnant and parenting system-involved youth*. New York, NY: Author.
- Keith, J., & Perkins, D. (1995). *13,000 adolescents speak: A profile of Michigan youth*. East Lansing, MI: Community Coalitions in Action.
- Knight, A., & Chase, E. (2006). Teenage pregnancy among young people in and leaving care: Messages and implications for foster care. *Adoption & Fostering, 30*(1), 58–69.
- Knight, A., Chase, E., & Aggleton, P. (2006). Someone of your own to love: Experiences of being looked after as influences on teenage pregnancy. *Children & Society, 20*, 391–403.

- Lachance, C. R., Burrus, B. B., & Scott, A. R. (2012). Building an evidence base to inform interventions for pregnant and parenting adolescents: A call for rigorous evaluation. *American Journal of Public Health, 102*, 1826–1832.
- Leffert, N., Benson, P. L., Scales, P. C., Sharma, A., Drake, D., & Blyth, D. A. (1998). Developmental assets: Measurement and prediction of risk behaviors among adolescents. *Applied Developmental Science, 2*(4), 209–230.
- Lieberman, L. (2005). *Final report to the Office of Adolescent Pregnancy Programs, US Office of Population Affairs, for Inwood House Teen Family Life, Inc.* New York, NY: Inwood House.
- Lieberman, L., Bryant, L. L., Boyce, K., & Beresford, P. (2014). Pregnant teens in foster care: Concepts, issues, and challenges in conducting research on vulnerable populations. *Journal of Public Child Welfare, 8*(2), 143–163. doi:10.1080/15548732.2014.895793
- Lieberman, L., Gray, H., Wier, M., Fiorentino, R., & Maloney, P. (2000). Long-term outcomes of an abstinence-based, small group pregnancy prevention program in New York City. *Family Planning Perspectives, 32*(5), 237–245.
- Lieberman, L., & Maloney, P. (2000). The teen choice model: A small group mental health approach to pregnancy prevention. *PPFY Network Pregnancy Prevention for Youth: An Interdisciplinary Newsletter, 3*(3), 3–4.
- Lieberman, L., Subin, C., & Gray, H. (1997). *Project IMPACT: Report on preliminary findings.* New York, NY: Inwood House.
- McMillen, J. C., & Raghavan, R. (2009). Pediatric to adult mental health service use of young people leaving the foster care system. *Journal of Adolescent Health, 44*, 7–13.
- Mollborn, S., & Morningstar, E. (2009). Investigating the relationship between teenage childbearing and psychological distress using longitudinal evidence. *Journal of Health and Social Behavior, 50*(3), 310–326.
- Najman, J. M., Williams, G. M., Nikles, J., Spence, S., Bor, W., O'Callaghan, M., . . . Andersen, M. J. (2000). Mothers' mental illness and child behavior problems: Cause-effect association or observation bias? *Journal of American Academy of Child and Adolescent Psychiatry, 39*(5), 592–602.
- NYC Administration for Children's Services. (2014). Retrieved November 5, 2014, from <http://www.nyc.gov/html/acs/html/home/home.shtml>
- Organizational Research Services. (2004). *Theory of change: A practical tool for action, results and learning.* Seattle, WA: Annie E. Casey Foundation.
- Pease, T., Colpa, A., Proulx, G., & Boss, J. (2004). Using technology in consultation: Enhancing relationships. *Zero to Three, 24*(6), 20–25.
- Pecora, P. J., & Williams, J. (2003). *Assessing the effects of foster care: Early results from the Casey National Alumni Study.* Seattle, WA: Casey Family Programs.
- Resnick, M. D., Bearman, P. S., Blum, R., Bauman, K. E., Harris, K. M., Jones, J., . . . Udry, J. R. (1997). Protecting adolescents from harm: findings from the national longitudinal study on adolescent health. *Journal of the American Medical Association, 278*(10), 823–832.
- Rogers, N. (1985). *The creative connection: A person-centered approach to expressive therapy.* Santa Rosa, CA: Person-Centered Expressive Therapy Institute.
- Rosenberg, M. (1991). The Self-Esteem Scale. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 121–122). San Diego, CA: Elsevier.

- Sarri, R., & Phillips, A. (2004). Health and social services for pregnant and parenting high risk teens. *Children and Youth Services Review*, 26(6), 537–560.
- Scales, P. (1999). Reducing risks and building developmental assets: Essential actions for promoting adolescent health. *Journal of School Health*, 69(3), 113–119.
- Schene, P. A. (1998). Past, present, and future roles of child protective services. *The Future of Children: Protecting Children from Abuse and Neglect*, 8(1), 23–38.
- Schuyler Center for Analysis and Advocacy. (2009). *Risking their future: Understanding the health behaviors of foster care youth*. Retrieved from [www.scaany.org/resources/documents/risking\\_their\\_future\\_report\\_000.pdf](http://www.scaany.org/resources/documents/risking_their_future_report_000.pdf)
- Schuyler Center for Analysis and Advocacy. (2010). Children's voice. *Child Welfare Watch*, 19–20.
- Sparks, C. (2011). *Literacy education and empowerment initiative*. Brooklyn, NY: Sparks Fly.
- Steinberg, D. M. (1990). A model for adolescent pregnancy prevention through the use of small groups. *Social Work with Groups*, 13(2), 57–68.
- Steinberg, D. M. (1997). *The mutual aid approach to working with groups: Helping people heal each other*. Northvale, NJ: Jason Aronson.
- Steinberg, L. A. (2009). Behavioral scientist looks at the science of adolescent brain development. *Brain Cognition*, 72(1), 160–164.
- Sullivan, A. (2009, July 22). Teen pregnancy: An epidemic in foster care. *Time Magazine*. Retrieved from <http://content.time.com/time/nation/article/0,8599,1911854,00.html>
- Taussig, H. N., & Culhane, S. E. (2010). Impact of a mentoring and skills group program on mental health outcomes for maltreated children in foster care. *Archives of Pediatrics and Adolescent Medicine*, 164, 739–746.
- Teen Parent Child Care Quality Improvement Project. (2005). *Teen pregnancy and education*. Retrieved from <http://www.thenationalcampaign.org/why-it-matters/pdf/education.pdf>.
- U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2012). *Child welfare outcomes 2008-2011 report to Congress*. Retrieved from [http://www.acf.hhs.gov/sites/default/files/cb/cwo08\\_11.pdf](http://www.acf.hhs.gov/sites/default/files/cb/cwo08_11.pdf)
- U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2013). *The AFCARS report, preliminary FY 2012 estimates*. Retrieved from <http://www.acf.hhs.gov/sites/default/files/cb/afcarsreport20.pdf>
- Ward, S., & Turner, H. (2007). Work and welfare strategies among single mothers in rural New England: The role of social networks and social support. *Journal of the Community Development Society*, 38, 43–58.
- Weissman, M. M., & Jensen, P. (2002). What research suggests for depressed women with children. *Journal of Clinical Psychiatry* 63(7), 641–647.
- Wulczyn, F. H., Chen, L., & Hislop, K. B. (2007). *Foster care dynamics 2000–2005: A report from the multistate foster care data archive*. Chicago, IL: University of Chicago, Chapin Hall Center for Children.