The Seattle Birth to 3 Project is a paraprofessional advocacy model of enhanced case management designed to effectively intervene with high-risk, drug-dependent mothers. Postpartum women were enrolled based on their heavy use of drugs or alcohol during pregnancy and lack of connection to community services, including prenatal care. Each participant was assigned a paraprofessional advocate who worked intensively on a one-to-one basis with her and her family for 3 years postpartum. Six components of the model advocacy program are identified: establishing the relationship; identifying client goals; establishing linkages with service providers; using written agreements; role modeling and teaching of basic skills; and evaluating the outcome. Results for 51 women assessed after 1 year indicate significant areas of improvement including increased involvement with drug/alcohol treatment agencies, decreased drug use, increased use of birth control, and increased involvement with supportive and skill-building groups such as parenting classes.

When Case Management Isn't Enough: A Model of Paraprofessional Advocacy for Drug- and Alcohol-Abusing Mothers

Therese M. Grant, Cara C. Ernst, Ann P. Streissguth, Pam Phipps, and Beth Gendler

Intervening effectively with chemically dependent, pregnant women presents a difficult challenge for professionals. The lives of these high-risk women are typically characterized by chaos and denial of their condition. They have been labeled distrustful, unmotivated, and difficult—if not impossible—to reach (Kaplan, 1986). This image has been enhanced by a media focus on "crack babies" and a social and political climate that suggests that drug-addicted mothers are responsible for a variety of social ills (Hutchings, 1993). Chronically drug-dependent women have become distrustful of "helping" agencies, while many professionals have come to view these women as a hopeless population.

Maternal drug and alcohol abuse puts children at risk, both prenatally through teratogenic effects and postnatally through a compromised home environment. Alienation from community resources only exacerbates the problems of maternal chemical dependency. The result is that those women at highest risk for delivering children with serious medical, developmental, and behavioral problems are the least likely to seek and receive prenatal care and other assistance from agencies designed to help them.

The needs of these high-risk women and their families are extensive and costly, but intervention is ultimately less expensive than chronic, intergenerational drug abuse, foster care, and jail (Gustavsson, 1992). A number of successful intervention programs for high-risk women and their children share common strategies: (a) coordinated team case management and strong referral relationships among social, health, and welfare services; (b) a family-centered approach incorporating home visiting; (c) improvement of social and physical environments; and (d) utilization of substance abuse treatment programs tailored for women with children (Hawley & Disney, 1992; Zerwekh, 1992; Olds & Kitzman, 1990). It has further been suggested that the relationship aspect of intensive intervention ("having a person to talk to who really cared") is more critical to marked improvement than concrete services received (Pharis & Levin, 1991).

The Seattle Birth to 3 Project is the demonstration of an intervention model that tests the concept of intensive, relational, and long-term paraprofessional advocacy with one of the most difficult populations in Seattle. It incorporates operational features of case management programs in general (Robinson & Bergman, 1989) (Table 1). The goal of the intervention for the community is to foster an understanding of how to use the concept of an advocacy relationship to achieve successful outcomes with chronic drug- and alcohol-abusing mothers and their families, who are unconnected and alienated from community support systems. The goal of the intervention for the women in the project is to receive assistance in obtaining drug and alcohol treatment, staying in recovery,

TABLE 1. Operational Features of the Birth to 3 Project

Operational Features	Birth to 3 Project
1. Client directedness	Highly client directed; client expected to be involved in identifying problems, potential solutions
2. Range of assessment or focus	Broad; based on client needs, clinical diagnostic information (e.g., mental health diagnosis), and nonclinical survival issues (e.g., shelter needs)
3. Program structure	Individual advocate/case managers responsible for individual clients
4. Degree of direct service provision	No direct services; advocates coordinate and utilize community health, drug treatment, and social services
5. Target population	Alcohol/drug abusing mothers; alienated from community services; poverty, low education, abuse
6. Advocate training	Non-certified; ongoing multidisciplinary training and weekly supervision
7. Service site	Community-based and home visiting; offices in client neighborhood
8. Staff-to-client ratio	1:15
9. Staff credentials	High school diploma and some higher education; work experience in social services
10. Staff availability	On-call availability via pagers ranges from 5–7 days a week
11. Intensity/frequency of contact	Ranges from daily contact to twice a month contact depending on client issues
12. Duration of service provision	Three years, from birth of target child until child is 3 years old
13. Administrative authority	No authority over client or client funds; contracts with client are not legally binding

Note. In order to allow comparison of programs, this conceptual framework outlines the operational features of case management programs in general (Robinson & Bergman, 1989), and particular characteristics of the Birth to 3 Project.

and addressing the complex problems that have arisen as a result of their distressed lives.

This article describes recruitment methods and characteristics of the enrolled sample, identifies effective aspects of the advocacy relationship, and reports maternal and child outcomes after one year of advocacy services.

METHODS

Recruitment

Women enrolled as clients in this demonstration advocacy project met two criteria: (a) heavy drug and/or alcohol use during pregnancy (as determined through self-report and examination of medical records); and (b) little or no successful involvement with community programs or services (including prenatal care). Women who were connected in an ongoing, effective way with community services such as drug/alcohol treatment programs, mental health programs, or other supportive groups, were not eligible for enrollment. All women were enrolled within 2 weeks of delivery of the target infant.

Participants were enrolled from July 1991 through December 1992 through hospital recruitment and community referral. The hospital screening methodology has been described elsewhere (Streissguth et al., 1991). Community referrals of drug-dependent women in their third trimester of pregnancy were accepted from health, social, and welfare agencies with whom high-risk women had come into contact. At enrollment, all participants were given a structured interview to determine quantity and frequency of drug use during pregnancy, drug-related problems, family history, and use of community resources.

THE CLIENTS

Of the 65 women enrolled, 34 reported heavy cocaine, heroin, or marijuana use during pregnancy. Ten women reported heavy prenatal alcohol use; twenty-one reported heavy use of both alcohol and drugs. Clients averaged only 4.7 prenatal visits, but 5 clients had none at all.

At the time the women joined the project, their lives were characterized not only by substance abuse, but also by the kinds of adverse circumstances resulting from a dysfunctional upbringing and chaotic lifestyle (see Figure 1). The typical Birth to 3 client is a single woman in her late 20s, born to substance-abusing parents. Raised in a foster family for at least part of her childhood, she was physically and/or sexually abused as a child, and ran away at least once. She did not complete high school and began to use alcohol and drugs herself as a teenager.

The typical client has been in jail more than once, and arrested more often for prostitution, assault, theft, or other crimes, than for drug charges. She has been through drug treatment and relapsed. She does not use birth control or plan her pregnancies; and now has three or more children, with at least one in the foster care

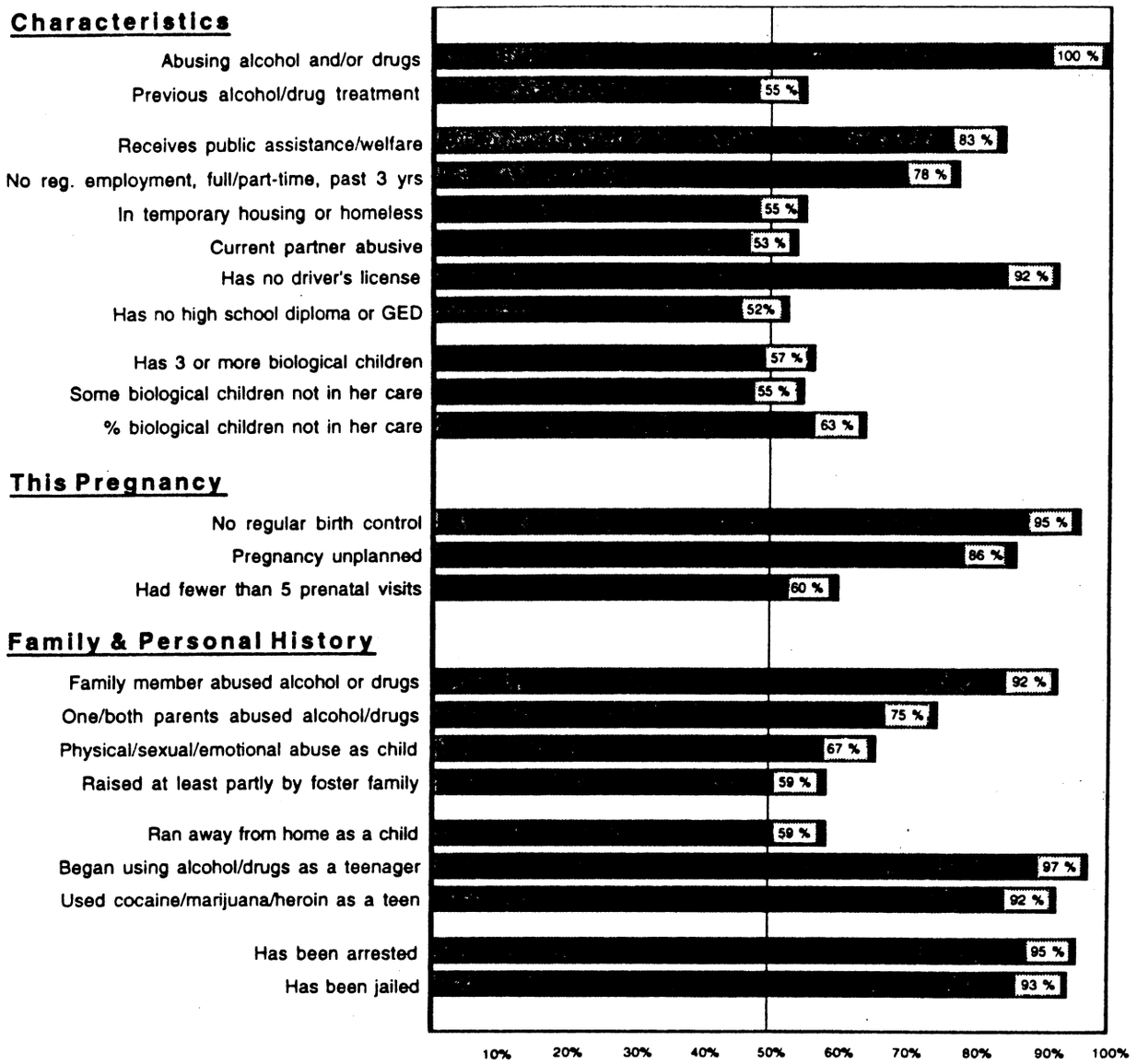


FIGURE 1. Descriptions of clients of enrollment (n = 65)

system. She is abused by her current partner, her housing situation is unstable, and her main source of income is welfare. She is unlikely to be involved in any kind of supportive social group.

THE ADVOCATES

Within one week of enrollment, each woman was introduced to her advocate; assignment was made by the project director on the basis of personality type, geographic location, and current staff caseload. Successful advocacy has not required matching advocates with clients based on race, age, or parity, and rarely has a client been transferred to a new advocate because of personality conflicts. Five advocates each had a caseload of 12 to 15 clients and families.

Advocates are paraprofessionals with work experience in the field of social services with high-risk populations. Although they had at least 2 years of college, this was not a requirement. They represent diverse ethnic backgrounds, and have experienced many of the same types of adverse circumstances as their clients,

including alcoholism, poverty, single parenting, and domestic violence. They have overcome formidable obstacles in their own lives prior to achieving success in important ways, e.g., by staying in long-term recovery, graduating from college, and maintaining steady and meaningful employment. Advocates are positive role models for clients, providing hope and motivation from a realistic perspective. They have varied styles and approaches to working with clients, but share the characteristics of having excellent problem-solving skills, tenacity, and a direct, honest, nonjudgmental manner.

The Intervention Model

"If you take one step, I'll take three."

Elizabeth Morales, Advocate
advice to a client

The intervention model involved six steps: establishing the relationship; identifying client goals; establishing linkages with service providers; using written agreements; role modeling and teaching basic skills; and evaluating the outcome.

Establishing the Relationship. Advocates and clients began by getting to know each other immediately after the birth of the target baby and establishing the trust that enabled them to work closely together for 3 years. This bonding process took months for those clients whose lifelong experiences of abuse and abandonment taught them not to trust anyone. During this initial phase, the advocate addressed immediate problems such as obtaining clothes and diapers for the newborn, locating temporary housing, or assisting the woman in obtaining welfare benefits for the family if eligible. These activities demonstrated to the client very early in the project that the advocate cared and could be trusted to follow through.

Advocates worked within the context of the client's family, and established rapport with the other children, the husband or significant other, and members of the extended family including the grandmother. As mothers, our clients are at the center of this network of relationships, in which everyone is involved in some way with the clients' substance abuse and related problems. Family members are all affected by any fundamental changes the woman makes as she attempts to break long-established behavioral patterns. Gaining the family's trust allows the advocate to support them during the process of change.

Clients sometimes disappeared for weeks or months at a time due to transitory lifestyles or gang involvement. This close relationship with supportive family members also allows the advocate to continue to provide services and act on behalf of the children, as well as to trace clients during long absences. Most of these clients reconnected with the project eventually, as a result of persistent efforts and the advocate's ongoing contact with the family.

Identifying Client Goals: Assessment and Planning. Within 1 week after enrollment, the advocate met with her client to assess the family situation and develop her own goals for working with this client. In addition, the client identified her own most problematic issues and goals using the "It Would Make a Difference Game," a needs assessment card-sort method (modified from Dunst, Trivette, & Deal, 1988). If the advocate identified critical issues not recognized or expressed by the client, she introduced these as potential target areas, along with the goals and needs identified by the woman herself. The client and advocate then decided on and recorded meaningful goals and the specific beginning steps that could be taken to attain them. Together they evaluated and reestablished the goals and steps every 4 months. Using this concrete, dynamic, and ongoing process, advocate and client developed plans realistic for both of them, in a way that gave the woman a voice and an opportunity to make her own decisions, and allowed her to observe and monitor her own progress. Advocates consistently challenged clients to achieve their goals, within a positive framework of belief in the woman's desire and ability to improve her life.

Advocates worked within the context of the client's family.

Establishing Linkages With Service Providers. Beginning at enrollment, the advocate contacted service providers with whom the client would be involved in order to establish a team approach to working with the client. The advocate (a) conveyed clearly that her role was that of an individual case manager responsible for an individual client; (b) helped the client articulate her objectives and commitment; and (c) facilitated the development of a service plan. Service delivery systems with which advocates worked included child welfare, health care, drug and alcohol treatment, child development, mental health, educational, judicial, and correctional systems. As confidentiality requirements at social service agencies limit the amount of information that can be shared, advocates asked clients to sign release of information forms when necessary.

The advocate acted as a liaison for communication within this working group to alleviate duplication of professional services, working at cross-purposes, or manipulation by the client. Clinic and agency effectiveness was improved when advocates managed the myriad complications (e.g., lack of housing, transportation) that would otherwise hinder or defeat a service provider's

purpose. For example, drug and alcohol treatment in Washington State is a complicated process involving state-mandated assessments and paperwork (because treatment is at state expense); waiting lists for placement into the few inpatient, women-centered treatment centers available; finding appropriate childcare for a client's children if necessary; and making arrangements for aftercare and transitional housing. Advocates were very involved in helping clients negotiate these steps, and provided extensive practical assistance and emotional support to clients in a manner that could not be duplicated by service providers with high caseloads, specific agendas, and time constraints.

Using Written Agreements. In appropriate situations, a "strong arm" in the form of a written contract proved to be beneficial for the client, the advocate, and the service provider. Advocates worked with clients and providers (e.g., landlords, judges, outpatient treatment counselors) to draw up agreements that defined explicit responsibilities and timelines. Clients were more likely to adhere to goals when they participated in establishing concrete, logical steps. The advocate could refer to the contract both in supporting her client or upholding the position of an agency. Personalized agreements heighten service providers' awareness of the possibilities of working successfully with this high-risk population. For example, Child Protective Services (CPS) has referred many difficult postpartum cases to our project in lieu of removing the infant from the mother's custody at birth. A contract with CPS is drawn up with input from the mother and the advocate, and stipulates the conditions under which she may keep custody of her child. Ideally, mothers and infants participating in the project stay together as a dyad, or will be reunited when the mother's situation has improved. However, because advocates act in the best interests of the child and were mandated by the state to report abuse, they instigated removal of the child from the home when necessary.

Role Modeling, Teaching Basic Skills. Role-modeling and teaching basic life skills were critical advocate strategies. It was clear that the clients' bleak backgrounds had done little to prepare them for adult life or parenting. For example, some problems with landlords and bill collectors were due to the fact that these women had never lived in a household that was "managed," nor had they had adequate training to prepare them for basic functioning within an economic system. Many of the women in the project had mothers who were alcoholic and/or drug abusers, and therefore may themselves have experienced the effects of prenatal exposure to alcohol and drugs. In addition, cognitive impairment may have occurred as a result of their own years of substance abuse. Advocates found that the most effective teaching techniques with clients were those that were very explicit and concrete.

Advocacy is not a desk job, and advocates made frequent home visits, as determined by issues the client was working on. They provided transportation because access to agencies located in different areas of a large city was difficult for women with many children and no vehicle. Advocates found that time spent in the car with a woman was valuable because they could talk together at length with relatively little distraction.

Evaluating the Outcome. Program evaluation is an important component of the advocacy model. Structured follow-up interviews with clients were conducted annually by trained researchers to measure client progress. These interviews provided outcome information on the success of the intervention. In addition, ongoing evaluation measures focused continually on the process of the intervention and included such evaluation tools as contact logs describing each advocate/client interaction, a card-sort needs assessment, "progress toward goals" sheets completed every 4 months, and regular advocate performance evaluations. These measures generated quantified data on qualitative processes on a regular basis and were useful for fine-tuning implementation of the intervention. Needs for more training and advocate support were quickly highlighted and addressed, allowing creation of a supportive environment that enhanced the advocates' ability to effectively intervene with clients.

The most effective teaching techniques with clients were those that were very explicit and concrete.

Guiding Principles

Three general principles characterized the advocate/client relationship: relapse was not unanticipated; clients were never expelled from the program, and dependency status of the client was decreased as much as possible during the 3-year program.

Advocates worked with the understanding that relapse was to be expected among clients with a long history of drug or alcohol abuse; any difficult undertaking requiring a woman to make pivotal changes in long-established patterns of behavior may entail setbacks. Women were never asked to leave the project because of noncompliance, poor performance, or relapse. This policy has resulted in clients' increased ability to overcome embarrassment and humiliation after relapse and resume

treatment more quickly and with greater determination. With the help of drug and alcohol treatment counselors, advocates used the experience of relapse to help clients examine events that triggered the setbacks and develop coping strategies.

Conceptually, the intervention allowed for a gradual transition to occur from initial dependence on the advocate's assistance and emotional support, to the client's more independent, healthier lifestyle. This weaning process occurs as women become drug-free, begin to trust in themselves as worthwhile and capable people, and learn the skills necessary to manage their lives.

RESULTS

Fifty-one clients were located for clinical follow-up at 12 months, and given a structured interview regarding family history of substance abuse, current alcohol and drug use and treatment, life circumstances, child custody, birth control, and child health and development. Each woman's progress at 12 months was compared with information obtained at baseline, using McNemar's Test. All information is based on self-report, and verified by advocate observation.

Outcomes: Drug/Alcohol Treatment

Obtaining alcohol and drug treatment was the primary goal identified by 88% of the clients and by all of the advocates. After one year in the project, 41 (80%) of the 51 women available for interview had been in inpatient drug or alcohol treatment, outpatient treatment, or alcohol and drug support services (Table 2). Inpatient residential treatment of 30 days or more was the most successful treatment option for clients. Eighteen of the 27 clients (67%) who entered residential inpatient treatment completed it successfully, including the 8 clients who went into inpatient treatment with their children. Only 3 of the 22 clients (14%) who entered outpatient treatment completed it successfully, although 9 women were still in outpatient treatment.

At the time of the 12-month interview, 22 (43%) of the clients were drug- and alcohol-free and had been abstinent from alcohol and drugs for a period of at least 3 months (excluding cigarettes and methadone); 16 (31%) were drug- and alcohol-free and had been abstinent for at least 6 months. Cocaine use decreased significantly, from 90% (46/51) during pregnancy to 53% (27/51) at 12 months ($p < .001$), although use of crack cocaine did not (41% during pregnancy compared to 38% at 12 months). Marijuana use decreased significantly, from 47% to 14% ($p < .001$). Use of heroin and alcohol also decreased, although not significantly. Although they had not quit altogether, 56% of the alcohol drinkers had decreased their use of alcohol; and of these, almost half of those (6 of 13) who had reported "binge" drinking (a pattern of 5 or more drinks per occasion) at enrollment were no longer binge drinking at 12 months. Cigarette use (which was not a target intervention) did not change; 90% smoked both at enrollment and at 12 months (see Figure 2).

Clients who had spent more time with their advocates in Year 1 were more likely to enter inpatient treatment and remain drug- and alcohol-free for a greater number of days. For example, of the clients who had spent 2–3 hours per week in direct contact with their advocate, nearly half were substance-free for 6 months or more; among clients who spent approximately half an hour per week with their advocate, only 8% were substance-free for 6 months or more. Among clients who spent 2–3 hours per week with an advocate, 58% completed inpatient treatment successfully, while only 31% of clients who spent approximately half an hour per week completed successful inpatient treatment.

At 12 months, those clients who had been drug- and alcohol-free for longer than 90 days were more likely to be achieving their other defined goals than the clients who were still abusing

TABLE 2. Drug and Alcohol Treatment and Progress at 12 Months after Enrollment ($N = 51$)

	n	Percentage
At enrollment		
Alcohol and/or drug treatment ever in life	27 of 51	53
At 12 months		
Any alcohol and/or drug treatment since enrollment	41 of 51	80*
Type of treatment		
Inpatient		
Completed	18 of 27	67
Treatment in progress	4 of 27	15
Dropped out of treatment	5 of 27	19
Total	27 of 51	53
Outpatient		
Completed	3 of 22	14
Treatment in progress	9 of 22	41
Dropped out of treatment	10 of 22	45
Total	22 of 51	43
Other treatment services[a]	34 of 51	67

Note. [a]Includes groups such as Alcoholics Anonymous, Narcotics Anonymous, transition treatment housing, and individual counseling. *$p < .01$.

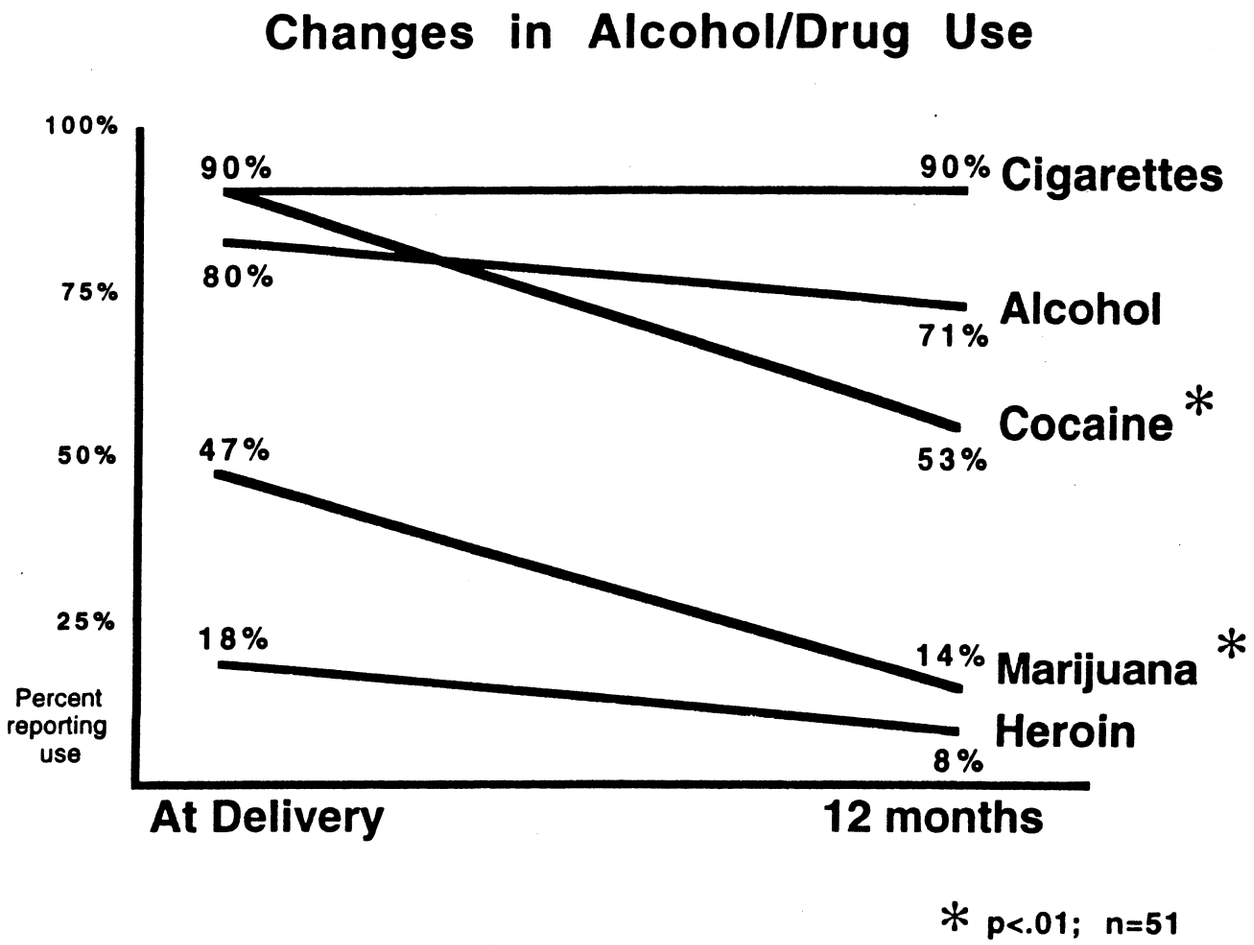
alcohol or drugs. Clients who had been substance-free for more than 90 days were more likely to be using birth control (50% vs. 41%), to have taken parenting classes (55% vs. 28%), to have some of their children living with them (95% vs. 72%), to be involved in support groups (64% vs. 55%), or to have been in job training programs (9% vs. 3%); fewer had biological children not living with them (50% vs. 66%).

Outcomes: Linkage to Other Services

Advocates placed a great deal of emphasis on family planning, although clients did not necessarily identify this as an important first-year objective. After 12 months, the regular use of birth control had increased from 4% at enrollment to 45% ($p < .001$), including 9 women with tubal ligations, 2 with Norplant implants, and 6 with current Depo Provera shots. At 12 months, 39% of the women had attended parenting classes, compared to only 6% at enrollment ($p < .001$).

At the time of the 12-month interview, a total of 27 women (54%) had held legitimate jobs for pay since the delivery, and 7 women (14%) reported their employment as the main source of income. Significantly more women (59%) were involved in some supportive group such as a church, treatment support group (NA, AA), or social support group, as compared to only 16% at enrollment ($p < .001$).

FIGURE 2. Change in self-reported use of alcohol/drugs between enrollment and 12 months ($n = 51$).



Note. Figures at delivery indicate percentage of clients reporting use during pregnancy; those at 12 months correspond to the percentage reporting any use in the past 8 months. To increase confidence in the results, client self-report of drug and alcohol use was compared with advocate report. Because there was some client tendency to underreport amount of use, this figure focuses on the simple binary variable of any use at all, which did agree with advocate report.

Outcomes: Child Custody

Nearly half (46%) of the clients identified child custody as an important first-year objective, although advocates did not necessarily believe this was realistic for all women, or in the best interests of the child if the mother was still abusing drugs and in unstable circumstances. At 12 months, 37 (57%) of the target infants were in their mothers' care, 11 (17%) were with family, friends, or the father of the baby, and 15 (23%) were in temporary or permanent custody of the state foster care system. Two study infants had died (one death was due to SIDS at 4 months of age, the other was caused by positional asphyxia in a defective crib at 10 months).

Six children who had not been in their mother's custody after delivery were now with their mother at 12 months. Twelve children who had been in mother's custody at birth had been removed from the home by 12 months because of substance abuse and subsequent inability to care for the child (see Discussion for details).

Outcomes: Health of Target Child

At the 12-month follow-up visit, 58 mothers or caretakers were interviewed regarding infant medical status during the first year of life. Although most of the study mothers had received inadequate prenatal care prior to delivery of the target infant, at 12 months 98% of the infants were receiving regular well-child health care. Nearly half (47%) of the infants were involved in therapeutic services, including special clinics, physical therapy, developmental stimulation programs, or therapeutic daycare.

Immunizations were completely up to date among 74% (41/55) of the infants, and every infant for whom immunization information was available had received at least two sets of immunizations (55/55; 100%).

DISCUSSION

The problems of difficult populations do not disappear spontaneously, or have less of a social and economic impact on a community, when agencies tacitly decide they cannot work with them. Gatekeepers of health and social services must be willing to recognize when their systems are ineffective with those most at risk and in need of services, and different approaches to working with high-risk clientele should be examined. The Birth to 3 model of practical case management within the context of a long-term, supportive advocacy relationship has been a successful response to this dilemma in Seattle.

For the women in the project, the advocacy concept involves more than case management and day-to-day, practical assistance in obtaining services and transportation. The critical component of the model is the personalized, caring support over a long enough period of time to allow for gradual, enduring changes to occur. The paraprofessional advocacy relationship is therapeutic because clients become connected to another individual in a trusting, healthy relationship for perhaps the first time in their lives. In examining outcomes, the amount of time advocates and clients spent together was used as a measure of the extent of the relationship between the two. Clients who spent more time with their advocate, and therefore had become more involved in the relationship, were more likely to enter treatment, stay in recovery, and subsequently begin to address other issues in their lives.

The first step toward rehabilitation is successful substance abuse treatment and recovery. Sobriety and clarity must occur before clients are able to realistically achieve progress in other areas of their lives. Advocates and most clients concurred in this, and the majority of clients entered a drug or alcohol treatment program during the first 12 months in the project. Those clients who had been drug- and alcohol-free for over 3 months were more likely to have begun working on goals in other areas of their lives and meeting with success.

The effective use of birth control is obviously a critical aspect of preventing births of future drug- and alcohol-affected children in this population. Although clients rarely identified this as a goal in Year 1, advocates viewed birth control education and implementation as a priority, both among clients who continued to abuse substances and among those who were in recovery but struggling to regain control of their lives. In spite of clients' initial indifference to the issue, the influence of advocates is apparent in the more than tenfold increase in clients' regular use of birth control in the first year of the project.

Child custody is a recurrent theme in clients' lives because a majority of the women have had children removed from their care by the state. Regaining custody was a goal stated by half of the women in Year 1, although advocates did not necessarily concur that reunification was in the best interests of a child. Advocates are in a unique position to identify problems that place children at grave risk in families who would otherwise have disappeared from notice by health and social service providers. They instigate removal of children from the home when necessary; fewer target infants were in their mother's custody at 12 months of age than at delivery. The turning point for successful resolution of child custody issues occurs when the mother takes responsibility for her own behavior and predicament, and begins to take the steps toward creating a healthy environment for herself and her children. Regardless of who has custody, advocates work on behalf of the child to secure a safe home environment and regular health care.

The paraprofessional advocacy model demonstrates a method by which communities can respond more effectively to the problems of serious maternal substance abuse. Individual agencies, clinics, and treatment

programs simply do not have the personnel and other resources with which to manage the multiple problems of these women and their children through the long, unpredictable process of treatment, recovery, and building a new life. The paraprofessional advocate assists and challenges her clients to make connections in the community and follow through, and illustrates to service providers how formerly "hopeless" women are able to achieve success over time. Benefits to society include fewer alcohol- and drug-exposed infants and mothers who are healthier and able to assume more responsibility for their families.

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