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SERVICES RESEARCH REPORT

Specialized Therapeutic Community Program for Female Addicts

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SUMMARY

This report contains findings from the Mabon Parents' Demonstration Program (MPDP) which was designed to test the effectiveness of a specialized therapeutic community approach offering comprehensive treatment services to drug-addicted women and their dependent children. The MPDP residential facility, located in an isolated area of New York City (Ward's Island), had the capacity to house 40 women and 40 children. During the course of the 3-year demonstration project (1974 to 1977) 304 women were treated. It was the philosophy of the MPDP program that treatment and rehabilitation could best be achieved in a therapeutic community, where the client is relatively insulated in a "closed community" and continuous and multiple helping strategies are applied in a controlled environment.

The two primary objectives were:

- To provide new information about the needs and problems of female addicts and their children; and
- To provide new information on the most effective and efficient methods of treating female addicts and their children.

The evaluation of this program, which was conducted by Cuskey, Ipsen, and McCall Consultants, Inc., of Pennsylvania, centered around two strategies: cohort group analysis and followup group analysis. A pre-post (before-and-after) research design was utilized and data were collected from the clients at various time periods during the operation of the MPDP program. Superimposed upon these treatment period data were followup data collected from or about participants who had terminated from the program.

Pretreatment and admission data revealed that the MPDP women had considerable exposure to personal trauma, family disorganization, and early and addictive experiences with drugs both by themselves, as well as by significant others in their lives. These drug experiences covered the gamut of drug-related family deaths, criminal activity to support a drug habit, experimentation with and addiction to a wide variety of opiate and nonopiate mood-altering substances and, to a major extent, drug-related problems such as dropping out of school, unemployment, broken marriages, and institutionalization.

The cohort group analysis focused on the number of months a woman was exposed to the MPDP treatment community and the associated changes that took place while she remained in this milieu, in the outcome variables of drug use, psychological factors, criminal activity, employment status, educational activity, medical condition, and parenting attitudes. An explicit assumption was that the services and overall therapeutic community setting were primarily responsible for changes in outcome. Confidence in this assumption is appreciable, given the "closed community" nature of the MPDP. Most outside or extraneous variables were largely neutralized or eliminated. This cohort analysis revealed the following:

- Patients were less likely to use drugs and alcohol and less likely to become involved in criminal activities the longer they were exposed to MPDP. Those who did become involved and were caught were likely to be terminated by the program.
- Patients were more likely to be employed and to earn more money with more exposure to MPDP. In the early stages of treatment, clients were required to devote more time to the therapeutic process and were generally not allowed to engage in outside work.
- Length of program exposure was associated with positive attitudinal changes, including improved self-concept, perception of own health, and improved mother-child relationships.
- Length of stay in the MPDP was associated with the development of better parenting attitudes, particularly regarding acceptance of the child and less emphasis on overprotection, overindulgence, and rejection.
- Profiles on the children showed that they were only slightly below the developmental

levels of normal children. Change in children's performance cannot be determined since data were not collected at admission.

It should be pointed out that these findings are based on data collected while the clients were still residing in the program. The data collected at followup indicate that time in treatment was not a predictor of success.

The followup group analysis attempted to determine what happened when program participants returned to the outside community. Followup data were available for 97 cases, with 43 personally interviewed. Methodological checks comparing the characteristics of those interviewed and those not interviewed indicated that the two groups were similar, permitting generalization to the population of women clients. The major findings were as follows:

- Eighty-four percent were not using drugs.
- Eighty-seven percent had not engaged in criminal activities or been arrested.
- Only 16 percent were employed, with only 4 percent employed on a full-time basis.
- Only 13 percent were involved in educational activities.

As part of the followup analysis, the 43 women personally interviewed also provided additional information on their perception of and reactions to the MPDP program. These data indicated that the program qualities most appreciated by the women clients were as follows:

- More than 80 percent felt that their conversations and friendships with other women were beneficial.
- Group counseling (86 percent) was reported to be the primary service activity participated in, with more of a preference for ex-addict counseling. Referrals for medical assistance were also viewed as useful by a large percentage (88.9 percent) of the women interviewed.
- Clients said that what they liked most about the program was being with their children.

An important finding from the followup study had to do with the length of time clients actually spent in the program and the benefits derived. Program participation of less than 4 months included most of the successes in the two key outcome variables of nondrug use and noncriminal activity. Since only 21 percent of the clients actually completed 4 or more months, and only 14 percent completed more than 9 months, the implications are that long-term stays of more than 4 months are inappropriate for this population, and that personal and funding resources might be better used for short- or intermediate-term residential stays, treatment of more addicts, and provision of more aftercare, especially for employment and education referral.

BACKGROUND: PROBLEMS AND DIMENSIONS OF FEMALE ADDICTION

Prevalence Estimates

The need for insight into the phenomena of female addiction becomes apparent when one considers estimates of heroin incidence in the United States; particularly in New York, where there is a heavy concentration of female addicts. It was reported that 86 percent of the female addicts in New York City are between the ages of 18 and 30; 90 percent within the range of 15 to 35 years (Burt and Glynn 1976). Based on these prevalence estimates, over 74,000 female addicts in 1975 were of childbearing age.

From the few studies which have been conducted to date, it appears that the number of pregnant addicts is increasing (Zelson 1975). In 1970 Philadelphia General Hospital reported that 1 out of 71 deliveries was to an addicted woman. In 1971 this number increased to 1 in 21, and in 1972 the figure was 1 in 16 (Finnegan et al. 1975). The same phenomenon has been noted in New York City: In 1963 only 1 out of 164 admissions to New York City College Metropolitan Hospital was an addicted female; in 1973 the ratio was 1 in 47 (Nathenson 1974). It might also be noted that due to the unwillingness of females to be identified as addicts, or fear of reprisals from the courts, it is probable that many pregnant addicts escape detection. In addition, it is suspected that a significant number may self-deliver or deliver at home without a physician in attendance (Finnegan et al. 1975). Thus, it may well be that the incidence of pregnancies among addicted females has been underestimated.

In addition, it appears that female addicts are having more children. In 1944 Pescor reported that the typical female addict had one child, in 1966 Ellinwood estimated that the median was two children (Ellinwood et al. 1966). Extrapolating from these figures, it can be estimated that over 234,000 children in the U.S. have mothers who are addicted to heroin.

The increasing numbers of women becoming addicted to heroin, the larger numbers in the childbearing years, and the indications that a greater proportion are becoming pregnant and having children consitute a serious problem. More children are being born addicted, and both their mothers and the infants are at risk from the effects or concommitant lifestyle of heroin abuse.

DESCRIPTION OF THE MABON PARENTS' DEMONSTRATION PROGRAM MODEL

The Odyssey House Mabon Parents' Demonstration Program was initiated in June 1974 and continued through May 1977. The program was designed to serve addicted mothers and their children. The facility, located on Ward's Island in New York City, was large enough to accommodate 40 women and 40 children at one time.

The MPDP accepted referrals from the courts, hospitals, homes for unwed mothers, private and public social service agencies, women's prisons, and other addiction agencies which cannot care for pregnant addicts, or addicted mothers and their children. Approximately one-third of the women were referred through the legal system, 17 percent by family or friends, and 10 percent by social agencies. Close to one-fifth enrolled voluntarily. Admission to the program was not circumscribed to any specific catchment area; referrals were accepted from all over the country.

Induction services included orientation sessions to the therapeutic community, confrontation groups, a psychiatric mental status examination, a psychological test battery, and a complete medical (gynecological, obstetric, and laboratory) examination. Apart from addiction status, the only rigid criteria for admission were that the individual was pregnant, or was a mother who wanted to have her child live with her while she underwent treatment for drug addiction. Children were accepted under the age of 6. Two-thirds of the women had heroin abuse problems upon admission, with the remainder addicted to barbiturates, amphetamines, or cocaine. Almost 30 percent were pregnant upon entry, 47 percent were mothers and two-fifths enrolled with their children.

During the course of the 3-year demonstration project, 304 women and 158 children were serviced by the program. The average age of addicts at admission was 23 years, and two-thirds of the females were between 20 and 29 years of age. Almost one-half of the residents were black, 29 percent white, and 13 percent Hispanic. Over 90 percent of the women were born in New York City.

The MPDP budget from April 1974 to June 1977 was approximately $783,000. The average cost per client was $6,796. Patient care and personal services represented about 90 percent of the budget. Of the 37 employees, 62.1 percent were treatment staff, including two psychologists and one psychiatric nurse; 21.6 percent were administrative staff and 16.2 percent were involved in research. The remainder were teachers, vocational instructors, administrators, and maintenance personnel. Emergency medical, obstetrical, or gynecological referrals were made to a local hospital. All detoxification procedures were supervised and/or administered by the medical staff of Odyssey House.

Induction and Motivation Phase

At induction the patient provided information regarding her drug history, social history, and legal/court history. She was first evaluated to determine the need for detoxification, emergency medical, obstetrical, or psychiatric services. The patient was given a thorough security check. She was then escorted to the Mabon Building on Ward's Island where the demonstration program was housed.

A urine specimen was collected for toxicologic examination by the Medical Examiner's Office of New York City. Thereafter, urine was collected regularly from both the patients and the staff members to insure the drug-free status of the program. The induction department also had primary responsibility for liaison with the criminal justice system. All splittees who had court cases were followed up by the induction staff, reports were filed with the proper court officials, and appropriate information was made available to the courts. Many residents in the program had continuing court cases. The induction staff kept track of scheduled court appearances, appeared with the individual in court, obtained the necessary evaluations required from other staff members, and provided periodic followup to all probation, correction, and parole officers.

The period from the moment of induction to "the probe" was called the motivational phase of the Odyssey treatment program, and lasted from 2 to 6 weeks. Within 24 hours after admission the new resident had an "inquiry-in" which was conducted by representatives of the therapeutic community. The function of this meeting was to provide an orientation for the new resident and to give her a sense of belonging. Additionally it allowed the residents to acquaint themselves with the new member and to identify any new problem areas which might complicate the interpersonal in-residence relationship.

After the inquiry-in, the new resident was given candidate-in status, the first step as a member of the community. She was responsible for manual work within the community, but had no voice in the running of the community. The candidate-in participated in group therapy daily, where the major emphasis was on regulating one's behavior and accepting the need for help that the program offered. This period was structured to prepare the individual for the first and most important therapeutic experience in Odyssey House: the probe.

Candidate-in groups were run by an ex-addict unit leader, a senior resident in the program, and a member of the professional staff. They were not meant to be therapy sessions in the sense that one deals with personal insight and past experiences. However, they were considered therapeutic in the sense that patients had to accept personal responsibility for their status, actions, and activities.

The basic daily schedule of the candidate-in centered around work and group therapy sessions. Each patient got up at 7 a.m., participated in a morning meeting, and then assumed a work function. This included basic manual work of food preparation, maintenance, and housekeeping. By their work and their acceptance of the Odyssey House program, they "payed" for their treatment and earned the right to have a probe.

The candidate-in was not allowed to encounter or confront other members of the community since she had not passed her probe yet. She was allowed to participate in supervised cross-confrontation with her peers and she could request an audience with members of the community. This was a request for permission to encounter or confront, and it could have been granted or refused at the discretion of the resident or staff member in question. In no other circumstance at Odyssey House could an individual refuse to be encountered. Candidates-in also participated in weekly concept meetings. These were structured to provide staff with an opportunity to observe and evaluate the candidate-in. The motivational phase was probably the most

difficult in the program from the resident's viewpoint. Whether the individual entered voluntarily or through the coercion of court, family, or bad street experiences, it was likely that she would rather be elsewhere. The attrition rate during the first month approached 50 percent. It was much higher for the voluntary patient than for the involuntary. This fact alone suggests that initial motivation for most addicts did not come from within but was externally induced, since Odyssey House did not distinguish in any way between the two groups.

Treatment Phase

The treatment phase of the program averaged 8 to 12 months, and included three levels. It began with the probe and ended when the resident was promoted to level 4, the beginning of reentry.

The probe constituted the first real therapeutic challenge to the resident. After suitable progress as a candidate-in, the resident could be recommended by treatment staff for a sponsored probe. If not sponsored by the end of 6 weeks, the individual was formally confronted as to her failure and received a probe by default shortly thereafter. The probe was generally conducted by a member of the treatment staff, with representatives from all levels of the community involved.

In the probe, the candidate-in had to prove to the community by both word and deed that she understood the concept of Odyssey House and that she had a commitment to live by this concept while in residential therapy. In reality this meant that she was willing to look inside herself for the answers to her problems, that she was willing to accept responsibility for herself and her actions, and finally, that she was willing to submit to the authority and discipline of the community.

She had to pass her probe with the full approval of all participants in order to be accepted into the community as a level 1. If there was one negative vote the individual failed her probe. If she failed in a sponsored probe she remained a candidate-in until she had another opportunity. Whether pass or fail, a written report of the probe was prepared by all residents and appended to the patient's chart.

At this point the patient became a full-fledged, functioning member of the community, entitled to use all the tools of therapy. It was now up to her to earn the privileges and responsibilities that come with advancement. As a level 1 the patient's primary work responsibility still centered around physical labor. Very little free time was permitted as most of her day was structured. She was required to spend approximately 12 hours a week in group therapy sessions.

At level 2 there was a marked shift in the patient's situation within the program. Her job functions were generally changed from physical labor to office work or other job functions with more responsibility. At this level her group therapy sessions centered around her existential reality, how she dealt with demands, new stresses, and new experiences; how she assessed her abilities and viewed herself.

Once she had satisfied herself and treatment staff that she had successfully resolved the problems of level 2 she was ready to progress to level 3. This was perhaps the most difficult phase occupying most of the time spent in treatment. Here each resident was given more authority. Certain level 3s were promoted to house coordinators, that is, responsible for helping to run the facility in all aspects on a day-to-day basis. She was expected to demonstrate leadership in assuming these responsibilities and in functioning as a unit leader. She was also allowed to leave the house alone on agency business and could receive unopened mail.

In therapy sessions she began to deal with herself in the context of her role in society. Family problems and anxieties were openly discussed. The groundwork was laid for future education and career choice. Most important there was a full exploration of the patient's attitudes toward herself and others. She attended level 3 group activities on the average of 15 hours a week and spent another 10 hours participating as a leader in others. At this level the resident was considered ready to begin the reentry program.

In general the entire treatment phase centered around the group and the facility, and how the individual handled herself in this context. The treatment process was not always one of steady advancement. Attrition continued and many patients experienced major setbacks. Patients could be demoted from one level to another, or be given an added burden (additional work responsibility or much more of an abstraction designed to provide a particular learning experience). Setbacks were dealt with in a way designed to provide a meaningful teaching experience so that patients could learn from mistakes.

Reentry Phase

Attainment of level 4 status signified the end of in-residential treatment and the beginning of reentry. This was the longest and possibly the most difficult period of the program. It lasted a minimum of 6 months. Whereas the treatment phase set out rigid criteria by which the patient was evaluated, reentry provided more flexibility. The basic question each level 4 had to answer affirmatively prior to completion of the process was, "Can I leave the protective environment of Odyssey House for the world at large and will I gain mastery over self?"

Each resident was afforded the opportunity to test herself in a step-by-step process. She assumed greater authority as a supervisor, she began to involve herself more in outside education, or in vocational activities. The level 4 had to make concrete decisions regarding her family--to repair a broken marriage or seek a divorce; to assume responsibility for her children and be a good role model.

The resident had specific personal obligations and involvements outside Odyssey House. She received a subsistence stipend from the program's general funds. Out of this the level 4 had to pay rent and meet all of her expenses. Learning to deal with a limited amount of money was considered to be a practical learning experience. After 6 months level 4s lived outside the facility, had to pay rent, and deal directly with the day-to-day realities.

During reentry private therapy was offered to level 4s. In this period level 4s had the requisite concern, motivation, and perseverance to make individual therapy more successful. A major attempt was made to help them overcome their ex-addict identity.

Graduation

Candidate-out represents completion of the Odyssey House program. It was reached at 24 months on the average with some reaching this stage 18 months after induction and others requiring more time. A level 4 had to satisfy other candidates-out that she had resolved her ex-addict identity and her family conflicts, had made concrete plans toward her future in terms of vocation and further education, and had come to some understanding about the need for additional therapy.

Nursery

The children at the Mabon receive 24-hour supervision by trained personnel 7 days a week. Nursery coverage was facilitated by organizing employee schedules on a rotating basis according to the age, number, and activities of the children.

The nursery was divided into three groups: infant (newborn to 18 months), toddler (18 to 42 months), preschool (approximately 3½ to 6 years). In addition, children of school age attended kindergarten at a public school in the afternoons. Infants required a minimum of one adult for every seven babies. Toddlers required a minimum of one adult for every five children. Preschoolers required one adult for every eight children. If filled to the maximum capacity of 40 children, seven nursery workers were generally required to supervise during the day--two with the infants, three with the toddlers, and two with the preschoolers. The nursery staff was composed of professional nursery school teachers, and paraprofessional child-care workers. In addition, parents worked in the nursery in a job function capacity under the supervision of paid staff. The program was flexible enough so that when one group was sleeping, staff would give additional help to the other groups. The professional day-care workers also helped to supervise the parents with the evening meal and to help them put the children to bed.

The nursery curriculum was planned according to the needs of the age group. The objective was to provide the infants with a warm, secure atmosphere and to fulfill emotional and physical needs. In addition, the infants were given motor and sensory stimulation with music, colored mobiles hung above the cribs, soft animals, and simple manipulation toys to exercise finger coordination. The older babies were given mattresses for stomach waddling, table walkers, and netted playpens to pull themselves upright.

The toddlers demanded a great deal of attention, primarily because they were not toilet trained, were at an oral stage, and had short attention spans. In addition to fulfilling their emotional and physical needs, the toddlers were provided an abundance of sand and water play, push and pull toys, finger toys, rockers, tricycles, and tumbling mats, in order to develop both fine and gross motor coordination.

The preschool children had a program resembling that of traditional day care. The objectives were to help them make a comfortable separation from their parents, work in groups

(included sharing materials and sharing with their peers), to stimulate their curiousity about their world, and to feel good about themselves. Their activities included painting, clay, water play, block building, music (records and rhythm instruments), pasting, glueing, cutting, and for the older children, a language, arts, reading-readiness program to help the child learn colors and left-right orientation. They also had some muscle development equipment such as tumbling mats, climbing bars, tricycles, seesaws, etc.

Parenting Treatment Services

Development of effective parenting behaviors and attitudes was a key element in the total treatment approach. Odyssey applied the communal concept which made the children the responsibility of the total community; and, more importantly, limited the direct responsibility of the mother for the child, particularly during the early phase of her treatment. Thus, the parent was responsible in the early phases for such communal tasks as cleaning, food preparation, etc. Contact with children was strictly supervised by staff or senior residents and was limited to such basic tasks as washing, dressing, or serving meals. Moreover, contact with the children around these tasks would usually involve a group so as to further diffuse the intense mother-child relationship. Control of children was the responsibility of senior residents or staff. This approach, to deemphasize the individual child-mother relationship early in the treatment process, was based on the following rationales:

- To break the intense, sometimes destructive, narcissistic bond between mother and child.
- To relieve the mother of the need to respond to the demands of the child at this early stage of treatment when she was likely to feel overwhelmed, inadequate, and frustrated.
- To allow the mother to adjust to basic organization and routine.
- To encourage the mother to view senior residents and staff as role models.

When the mother reached level 2 she would begin to learn more directly how to deal with children through work in the nursery and teaching of senior residents. Emphasis at this time was on learning how to relate to small groups of children (3 to 5) in terms of control, teaching of skill development, and having fun. At level 3 she assumed responsibility for handling groups of children under minimal supervision, teaching level 2s, and beginning more individual contact with her children. At level 4 she had increased individual contact with her own child as preparation for moving out during the reentry process.

In addition to the experimental treatment, all parents participated in groups focused on the special problems of parenting. Through level 2, the groups were predominantly educational, focusing on the basics of child development, child health, and child care. At level 3 and above, the groups focused on the psychological and emotional development of children with an emphasis on enabling the parents to understand a child's feelings and needs by relating to their own childhood experiences. Closed-circuit TV was utilized as a tool to allow mothers to observe children and child-parent interaction, including their own interaction with their children.

RESEARCH DESIGN AND EVALUATION STRATEGIES

In order to fulfill the stated objectives of providing new information on women addicts and their children and the most effective mode of treatment, a before-and-after research and evaluation design was used to collect data at various times during the program and after clients left the program.

Although results from this evaluation are not readily generalizable to other programs, they can provide insights into the model tested. If caution is used, given the limitations of this research design, some generalization is possible to other therapeutic community (TC) addiction programs and populations. This is possible given the "total institution" nature of the MPDP, whereby most outside or non-TC extraneous variables (e.g., other community drug programs, significant others in family, or outside community) were eliminated or largely neutralized.

Pretreatment Evaluation

It was assumed that certain crises and/or traumatic events take place in the life of an individual which contribute to deviant lifestyle and drug abuse/addiction. Therefore, the pretreatment evaluation component included methods of assessing: (1) antecedent family

factors; (2) episodes of acting out; and (3) deviant lifestyle.

An instrument called the Sociological Autopsy (SA) was devised to assess the extent to which family and other background variables affected the clients. The SA is a 500-item, partially open-ended interview instrument designed to elicit information on the major life crises that occurred at critical times of growth or development for the MPDP women. For this analysis, the SA data were categorized as: prelatency (zero to 5 years); latency (6 to 10 years); preadolescence (11 to 15 years); adolescence (16 to 20 years); and adult (21 or more years).

Within the context of the treatment model, the term deviant lifestyle refers to drug abuse or addiction, engaging in illegal activities, and lacking a stable home environment. Two instruments were employed to measure the degree of deviant behavior among this population:

- Inquiry-in--a 52-item questionnaire which examines the degree of negative or deviant behavior exhibited by the individual prior to admission to the program; and
- Form I--a 202-item questionnaire which examines many of the same variables as does the inquiry-in, however, in much greater depth. The data obtained from this instrument was used as baseline data to be compared with data collected during treatment.

Data collected by each of these instruments were compatible and therefore merged to form clusters of information for the following categories:

- Degree, length, and frequency of drug use
- Type of drug use

The parent and child(ren) seeking admission to the MPDP also displayed an unusually high number of acute and chronic medical problems to which the program had to be responsive.

Several additional instruments were employed to gather data on psychological and social functioning problems. These instruments included a medical form, the Tennessee Self-Concept Scale (TSCS), an attitudinal questionnaire (Form II), a mental status examination, and a Mother-Child Relationship Evaluation (MCRE).

Treatment and Followup Evaluation

A basic assumption of the MPDP behavioral change model was that the longer the time spent in, or exposure to, treatment the

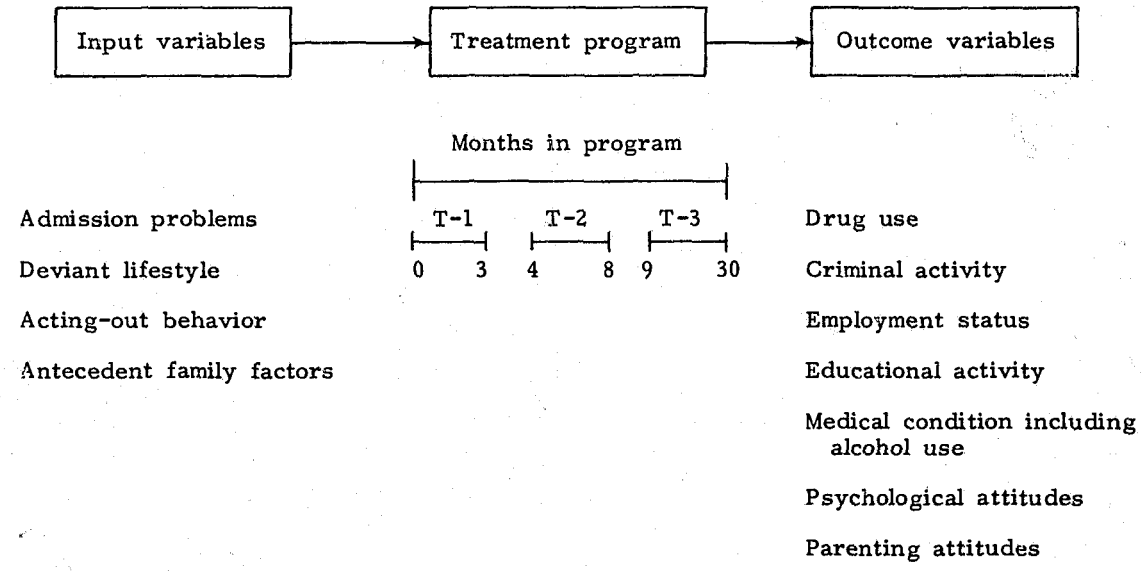

FIGURE 1.—Evaluation research design

greater the impact of the treatment milieu in creating for the individual a productive, nondeviant lifestyle after program participation. The program evaluation focused on the ability of the MPDP to modify and/or control the problems presented by the addict on admission. The types of problems included were: drug addiction; criminal activity; lack of vocational (employment) skills; educational deprivation; medical problems, including alcohol consumption; psychological problems; and inadequate parenting skills.

Figure 1 schematically presents the research design employed for the MPDP. As shown, a series of variables (i.e., from antecedent family factors through the treatment program) were related to major outcome variables.

The two specific analyses pursued with the before-and-after research design were:

- Cohort group analysis. An analysis within the TC of all addicts who were admitted to the MPDP by number of months (i.e., 0 to 3; 4 to 8; and 9 to 30) exposed to the treatment program.
- Followup group analysis. A followup analysis outside of the TC of those who terminated or completed the treatment program by number of months exposed to the treatment program.

Due to the late start of the evaluation contract it was not possible to collect information on all program participants. A related data base limitation was that among those for whom data were collected, some did not complete all data forms. The magnitude of this problem is shown in the data presented below on the percentage of forms completed by the total MPDP admission group of 304 cases.

Data collection instrument	No. completing	Percentage of total MPDP group completing
Form I and II	63	20.7
Maternal-Child Relationship Evaluation (MCRE)	75	24.6
Tennesse Self-Concept Scale (TSCS)	135	44.4
Sociological Autopsy (SA)	204	67.1

In order to have at least partial confidence in generalizations to the total MPDP population, or about a given data collection instrument, tests were made comparing available client data characteristics between:

- Those who did and did not participate in the data collection; and
- Those who did and did not complete a given data collection instrument.

These tests indicated that no differences existed in client characteristics for either type of comparison. Therefore, partial confidence was supported for generalization to the total MPDP population or to results for a given data collection instrument.

Telephone interviews were conducted as a means of determining the impact of the program on those residents who terminated early. Information was obtained from the subject, parents, parole officer, etc. Here, the question of the validity of self- and other-reported data must be considered. It is believed that the degree of validity varies with the source. For example, a parole officer or social worker may give a more accurate answer regarding the subject's drug use than the subject herself. Data collected in the followup interview included information on not only drug use but also criminal activity, employment status, and educational activities.

PRETREATMENT AND ADMISSION CHARACTERISTICS OF MABON PROGRAM CLIENTS

Data on the pretreatment and admission characteristics of the MPDP women are presented by time period and aggregated into a temporal sequence from antecedent family factors to acting-out behavior to deviant lifestyle. Included are racial data categorized as minority and white. The operational definition of minority in this study refers to all MPDP women who were identified as black, Hispanic, or Oriental.

Antecedent Family Factors

The MPDP women overall revealed a high level of exposure to family trauma, crisis, and disruption. Exposure to heavy drinking by parents was frequent in the lives of many MPDP women. One-quarter (26.5 percent) reported this for their fathers and one in ten (11.3

percent) for their mothers. Parental abuse was similarly high. One-quarter (26.0 percent) of study women reported exposure to such abuse, with minorities (31.7 percent) higher than whites (20.4 percent). Physical abuse data revealed that one in eight (13.8 percent) women reported being seriously "bruised" or "injured" by their parents, and 4.4 percent reported abuse sufficient for hospitalization. There were no significant differences by race.

Data on sexual abuse and rape revealed that three out of ten (31.9 percent) MPDP women reported being sexually abused as children, and one-quarter (27.9 percent) reported being raped. Related to these experiences, one of seven (14.2 percent) women reported an incestuous relationship at home with a male family member. First sexual intercourse was reported at 14.6 years of age for these women (no differences by race).

Sibling drug abuse or addiction was higher among minority (46.5 percent) as compared to white (35.0 percent) women, especially in terms of heroin (31.7 percent for minority and 16.5 percent for whites) and cocaine (10.9 percent for minority and 2.9 percent for whites).

Arrests of their parents were reported by 44.4 percent of MPDP women, including one-half (50.0 percent) of minority and one-third (33.3 percent) of whites.

Table 1 presents data on other family factors. These data did not specify the life stage at which these events occurred and were obtained for only 63 available women. Though

TABLE 1.—Antecedent attributes of addicts by race for family mobility, structure, economic status, and psychological problems (in percent)

	Minority N=42	White N=21	Total N=63
Family mobility			
Family moved during childhood	71.4	81.0	74.6
Home in slum	21.4	0.0	14.3
Subject still at home	9.5	9.5	9.5
Family structure			
Parents married and living together	40.5	71.4	50.8
Parents divorced/separated	14.3	0.0	9.5
Subject raised by both parents	42.9	61.9	49.2
Subject raised by mother only	25.2	14.3	22.2
Affectionate home	54.8	71.4	60.3
Subject only child	11.9	9.5	11.1
Older siblings	71.4	57.1	66.6
Younger siblings	66.7	66.7	66.7
Family economic status			
Poor family	26.2	4.8	19.0
Father is dominant figure at home	26.2	23.8	25.4
Father breadwinner	33.3	57.1	41.3
Family psychological problems			
Frequent quarrels	54.8	47.6	52.4
Mental illness or problem	14.3	19.0	15.9
Drinking problems	45.2	47.6	46.0
Drug addicts other than subject	50.0	33.3	44.4
Drug addicts among siblings	31.7	16.5	25.3
Deaths from drug overdose	9.5	4.8	7.9
Arrests in family	50.0	33.3	44.4

these are obviously limited data, they do provide some further insights into the antecedent familial background of these women.

There were significant differences between minorities and whites. The MPDP women came from families with considerable family and marital disruption, especially the minority women. It is significant that 9.5 percent of minority and 4.8 percent of white women reported deaths in their family due to drug overdose. Also of interest is the proportion (9.5 percent) of parents divorced or separated, and the proportion of women raised only by their mothers: 22.2 percent of the MPDP women (25.2 percent of minority and 14.3 percent of whites). The low divorce rate may be due to a lack of motivation on the part of these women to go through the legal procedures required to obtain a divorce.

Acting-Out Behavior

The impact of these negative familial and related influences are revealed in the many types of acting-out behavior reported by these women. For example, MPDP women reported frequent and early drug use and crime. They reported high rates of prostitution, dropping out of and truancy in school, teenage pregnancy, running away from home, attempted suicide, and institutionalization.

Table 2 presents data on runaway patterns, home difficulties, and suicide attempts of MPDP women. One in four (26.5 percent) of MPDP women reported no home difficulties, with minimal differences by race. Of interest is that among MPDP women over one-third (38.2 percent) reported having run away, and over one-quarter (28.4 percent) reportedly had attempted suicide, with the percentage of whites (35.0 percent) higher than minorities (21.8 percent). For all MPDP women, 12.3 percent reported hospitalization related to suicide attempts, with the percentage of whites (13.6 percent) somewhat higher than minorities (10.9 percent).

Deviant Lifestyle

Comparison was made of clients' marital, employment, criminal, and drinking histories before and after initiation of regular drug use. Increase was reported in separation or divorce (equal by race) from before (1.6 percent) to after (22.2 percent) drug use. There was also a drop in yearly legitimate source earnings before to after drug use of $3,440 to $2,717. Criminal activity before and after drug use, as shown in convictions, went from 14.3 percent to 55.6 percent, with minorities having a higher level of criminal activity before drug use, but the same level afterwards. There were few changes in drinking behavior from before to after drug use

TABLE 2.—Runaway patterns, home difficulties, and suicide attempts of addicts by race (in percent)

	Minority N=101	White N=103	Total N=204
No difficulty at home	29.7	23.3	26.5
Difficulty resulting in running away	33.7	42.7	38.2
Ran away fewer than three times	15.9	25.2	20.6
Ran away more than three times	12.9	19.4	16.2
Away from home more than 2 weeks	7.9	16.5	12.3
Difficulty resulting in attempted suicide	21.8	35.0	28.4
Number of suicide attempts:			
one	7.9	20.4	14.2
two	5.0	6.8	5.9
three or more	6.9	3.9	5.4
Institutionalized for suicide attempt	2.0	6.8	4.4
Hospitalized for suicide attempt	10.9	13.6	12.3

except for an increase (from 34.9 percent to 46.0 percent) in the proportion of white women drinking liquor (28.6 percent to 52.4 percent).

It is important to remember, in the context of this information, that three out of four (78.1 percent) program women had children, with one-half of these mothers having two or more children. At the time of admission 43.1 percent of mothers brought a child into the program and 25.0 percent were pregnant (see table 3).

EVALUATION ANALYSES OF THE MABON PROGRAM

Cohort Group Analysis

As discussed previously, the basic evaluative research strategy for the MPDP was a before-and-after design. Within this design, the cohort group analysis followed all addicts from admission to the MPDP until they completed or terminated participation. The key treatment program variable in this analysis was the number of months an addict was exposed to the MPDP treatment community.

The 304 persons admitted to the program entered over the time span of September 1, 1974, through January 31, 1977. Because of the differences in time of admission to the MPDP and length of stay at time of evaluation, homogeneity of the study population had to be determined.

To test for the assumption of homogeneity, individuals were grouped by length of time in the program: T-1 from zero to 3 months, T-2 from 4 to 8 months, T-3 from 9 or more months. The variables analyzed were: residence and mobility, family background and structure, family social and psychological problems, personal history (including education, school behavior, work history, and marital status), general health, drug and alcohol use, and criminal and arrest records. There were no significant differences between groups, thus indicating that any observed or recorded changes could be largely attributed to the differential impact of the MPDP program over time. In addition, the T-1, T-2, and T-3 groups were aggregated by race (white vs. minority), motherhood (whether addict was a mother or not), and by year of admission to the program to ascertain whether these subcategories of individuals differed. Again, no significant differences were found by race, motherhood status, or year of admission, yielding further confidence in the homogeneity over time of the MPDP study population.

Outcome of Cohort Analysis

For the three groups (T-1, T-2, and T-3), outcome data by number of months in program for the following types of variables were obtained while the clients were still program participants:

1) drug use

2) criminal activity

3) employment status

4) medical condition, including alcohol use

5) psychological attitudes

6) parenting attitudes

As expected from continuing participation in a TC, the longer the exposure and involvements the greater the change toward less drug and alcohol use, and less criminal activity--areas of behavior against which

TABLE 3.—Distribution by parental status at admission

Parental status	N	Percentage of total
No children and not pregnant	41	13.5
Child in Mabon program	118	38.8
Pregnant	76	25.0
Both child in Mabon and pregnant	13	4.3
Child not in Mabon	42	13.8
No information	14	4.6
TOTALS	304	100.0

participants are relatively insulated in a "total institutional" milieu. As shown in table 4, these positive changes occur most appreciably among those in group T-1 with up to 4 months of program exposure, and continue somewhat in group T-2, with group T-3 at about the same level as group T-2. The percentage of subjects using drugs for nonmedical purposes during the previous 1-month period dropped to 32.1 percent, with one-third of these reporting heroin use for the T-1 group and zero percent for both the T-2 and T-3 groups. As for criminal activity, arrests during the previous 3 months was at 42.9 percent for the T-1 group, and decreased to 7.1 percent at T-2 and 14.3 percent at T-3. Drinking behavior, be it beer, wine, or liquor, showed an overall continued decrease from T-1 to T-2 to T-3. In these areas--drug use, criminal activity, and drinking behavior--the MPDP was effective, at least within this TC setting.

Other positive changes, though less striking, are an increase in the percentage of subjects working and in their level of legitimate earnings. The change in these outcome variables is largely concentrated within the T-3 group who participated 9 months or more. For example, at T-1, 21.4 percent of the subjects had worked and had average legitimate earnings of $1,360 over the previous 3 months, while at T-3 these figures had increased to 33.3 percent working and $2,700 in earnings.

Health condition indicators revealed no consistent overall trend for the three time period groups except for self-perception of health. The proportion of subjects who perceived their health as "good" or "very good" increased from 42.8 percent at T-1 to 61.9 percent at T-3. Though self-health perception is not a medical diagnostic evaluation, it does provide moderate correlations to medical examination

TABLE 4.—Changes in female addicts while still in therapeutic community by months of exposure to program (in percent)[1]

Type of change	T-1 (0-3 mos.) N=28	T-2 (4-8 mos.) N=14	T-3 (9 or more mos.) N=21
Use of drugs for nonmedical purposes in the previous month	32.1	0.0	0.0
Use of heroin among those using drugs in previous month	10.7	0.0	0.0
Arrested during the previous 3 months	42.9	7.1	14.3
Employment during the previous 3 months	21.4	14.2	33.3
Average legitimate earnings for the previous 3 months	$1,360	$1,500	$2,700
Self-perception of health as "good" or "very good" during the previous 3 months	42.8	64.3	61.9
Illness during previous 3 months	39.3	35.7	47.6
Drinking in the previous month			
beer	14.3	7.1	0.0
wine	14.3	0.0	4.8
liquor	25.0	0.0	0.0

[1] Data were available for only 63 women for these cohort comparisons between time periods T-1, T-2, T-3 due to the late start of the evaluation's study. However, as in the test of homogeneity, no significant differences on a number of variables were found between these 63 women and the overall study group.

data and does to some extent represent a positive social-psychological attitudinal orientation.

Another outcome variable of obvious importance, given the continuing or potential motherhood status of these women, concerns parenting attitudes as measured by the Mother-Child Relationship Evaluation (MCRE). Analysis of MCRE data for the MPDP women revealed that length of stay in the program was associated with the development of more appropriate parenting attitudes in the areas of acceptance, overprotection, overindulgence, and rejection as measured by this instrument. Over the treatment exposure period, the study women shifted toward positive scores. An assumption from this finding is that the program was at least partially responsible for improving client attitudes toward their children.

At various stages of the MPDP some 55 of the 158 children in the program were tested by either the McCarthy Scales of Children's Abilities (N=33) or the Denver Developmental Screening Tests (N=22). Though these test data were not also collected at the time of admission and were obtained for only one-third of all children, the results indicated that the children had developmental profiles only slightly below that of normal children. Obviously, given the data collection circumstances, it is impossible to determine whether these developmental profiles are attributable to prior program variables or to the intervention of the MPDP.

The length of program exposure was associated with a number of positive attitudinal changes in the areas of self-perception of health, self-concept, and mother-child relationships.

Followup Group Analysis

The MPDP was effective in treating female drug addicts on a number of important outcome measures within the milieu of the therapeutic community. Of greater importance is what happens when the client returns to the outside community. It is in this natural milieu where the impact of a program has its greatest test of effectiveness and of creditability. In order to assess this longer term effectiveness of the MPDP, a followup study was organized to study 222 subjects who had terminated at various stages of the program.

Of the total of 222 persons sought, the breakdown in terms of status at followup was:

97	No contact
5	Died
23	Contacted but refused or unable to provide useful data
97	Contact by personal interview or telephone (client or informant)
222	Total group sought

A comparison was made for pretreatment and treatment component variables between the 97 cases contacted and the 125 not contacted to check for bias in the followup sample. This comparative analysis revealed no significant differences between those contacted and not contacted. Therefore, it was determined that the followup sample was generally representative of all those who terminated from the MPDP. Again, the late involvement of the program evaluation mitigated against a more comprehensive followup study.

Data on the 97 women were obtained from a variety of sources: 44.3 percent of the data were obtained directly from the former clients, 37.2 percent from relations or friends, and 18.6 percent from parole officers, case workers, or child welfare workers. Caution, of course, is pertinent given the limitations of self-report, recall, and informant data sources.

Findings regarding drug use show that 84 percent of all terminated clients were not using drugs (including marijuana) at the time of followup contact. A clear relationship could not be established between time in treatment and being drug free, since 85 percent of those in treatment for 3 months or less were drug free at followup, compared to 76 percent of those in the 4- to 8-month group and 92 percent of the group who had been in treatment for 9 or more months (see table 5).

The data on arrest status revealed that 87 percent of all terminated clients at the time of the followup study had not engaged in criminal activity, at least to the degree of being arrested. As shown, there was no direct relationship to months in program and only a slight indirect relationship to months after terminating to not being arrested (see table 6).

Findings on employment documented the low effectiveness of the MPDP in providing employment contacts and job training, as only 16 percent of those who terminated were employed when the followup study was conducted. Only a slight direct relationship was

TABLE 5.—Drug-free clients at followup by months in program and months after termination (in Ns and percent)

Months after termination	Months in program							
	0-3		4-8		9 or more		Totals	
	N	Percent	N	Percent	N	Percent	N	Percent
Less than 6	9 of 9	100	1 of 1	100	4 of 4	100	14 of 14	100
6-11	18 of 24	75	2 of 2	100	1 of 2	50	21 of 28	100
12 or more	30 of 34	88	10 of 14	71	7 of 7	100	47 of 55	85
TOTALS	57 of 67	85	13 of 17	76	12 of 13	92	82 of 97	84

revealed by months in program; for example, 23 percent of those in the MPDP for 9 or more months were employed. However, only a small number (3) of clients are represented by this percentage group. The extent of this employment was even less impressive since only 4 of the 16 employed had full-time jobs (see table 7).

Data on participation in educational programs revealed that only 13 percent were educationally involved by the time of the followup study (see table 8). There was little relationship to educational pursuits as indicated by months in the program. A more significant direct relationship was that of educational involvement and months after terminating. Here it was found that 20 percent of those who had been terminated for 12 or more months were active in educational programs. This may have been due to a time lag in later program placements and/or acceptance by outside educational programs.

In toto, the followup analyses of these four key variables indicated that little association could be found between the length of program participation and the general effectiveness of the MPDP. It is significant that in those areas of greatest impact--drug use and arrest status--positive changes occurred at almost the same rate for clients who completed 3 months or less of treatment, as for the total treatment population.

FORMER PARTICIPANTS' PERCEPTIONS AND REACTIONS

Another strategy used to judge program impact was to assess the perceptions and reactions of former participants to the program. These data were collected in the followup contact with individuals who were personally interviewed. Though these data are obviously limited in terms of numbers and representativeness of participants involved (43 women), some data comparisons and insights are possible concerning the MPDP program.

TABLE 6.—Clients not arrested at time of followup by months in program and months after termination (in Ns and percent)

Months after termination	Months in program							
	0-3		4-8		9 or more		Totals	
	N	Percent	N	Percent	N	Percent	N	Percent
Less than 6	8 of 9	89	1 of 1	100	4 of 4	100	13 of 14	93
6-11	21 of 24	88	2 of 2	100	2 of 2	100	25 of 28	89
12 or more	30 of 34	88	10 of 14	71	6 of 7	86	46 of 55	84
TOTALS	59 of 67	88	13 of 17	76	12 of 13	92	84 of 97	87

TABLE 7.—Clients employed at time of followup by months in program and months after termination (in Ns and percent)

Months after termination	Months in program							
	0-3		4-8		9 or more		Totals	
	N	Percent	N	Percent	N	Percent	N	Percent
Less than 6	1 of 9	11	0 of 1	0	1 of 4	25	2 of 14	14
6-11	5 of 24	21	0 of 2	0	1 of 2	50	6 of 28	21
12 or more	5 of 34	15	2 of 14	14	1 of 7	14	8 of 55	15
TOTALS	11 of 67	16	2 of 17	12	3 of 13	23	16 of 97	16

TABLE 8.—Clients in educational programs at time of followup by months in program and months after termination (in Ns and percent)

Months after termination	Months in program							
	0-3		4-8		9 or more		Totals	
	N	Percent	N	Percent	N	Percent	N	Percent
Less than 6	0 of 9	0	0 of 1	0	0 of 4	0	0 of 14	0
6-11	1 of 24	4	0 of 2	0	1 of 2	50	2 of 28	7
12 or more	6 of 34	18	4 of 14	29	1 of 7	14	11 of 55	20
TOTALS	7 of 67	10	4 of 17	24	2 of 13	15	13 of 97	13

Reasons for Leaving Treatment

Over one-half of former participants terminated for a variety of reasons, mostly centering directly or indirectly around perceived difficulties or inadequacies with the MPDP program. Among these self-reported reasons for all former participants were style of treatment (15.4 percent), pressures (15.4 percent), poor staff (5.1 percent), treatment for children (5.1 percent), and the lengthy reentry period (5.1 percent).

Desirable and Undesirable Features of the MPDP Program

The largest proportion of those who responded (53.5 percent) cited being with their children as the most desirable feature of MPDP. Not only does this represent the meaningful help given to these mothers, but it may indicate a means for inducing other addicted mothers to participate in a similar program. The most undesirable features cited were related directly or indirectly to treatment aspects of the program—18.6 percent on "treatment style"; 9.3 percent on "upper level staff"; 9.3 percent on "pressure"; and 4.7 percent on "group counseling."

Information was obtained on aspects of the MPDP program and its milieu to which the 43 women were exposed, and whether or not this exposure was perceived as beneficial. Of interest is that reports of exposure to various services varied considerably. Better than 8 out of 10 (86.0 percent) women reported exposure to group counseling, but only 1 out of 5 (20.9 percent) reported individual counseling. Likewise, relatively sizable proportions reported contacts concerning family problems (55.8 percent), medical assistance (41.9 percent), and legal problems (32.6 percent), but few had contacts concerning other agency services (7.0 percent) and jobs (2.3 percent). Also, the majority reported benefiting from conversations and friendships with other clients. This would appear to be an important aspect of the treatment milieu for these women.

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