SERVICE AND TREATMENT RESOURCES FOR MOTHERS OF CHEMICALLY ADDICTED INFANTS

by

LANA NEEDER

B.A., University of Saskatchewan, 1974
B.S.W., University of Calgary, 1977

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SOCIAL WORK

in

THE FACULTY OF GRADUATE STUDIES
(School of Social Work)

We accept this thesis as conforming to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

November 1991

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Department of Social Work
The University of British Columbia
Vancouver, Canada

Date October 17, 1991
ABSTRACT

There is a vast amount of research on the effects of prenatal substance abuse and the treatment of its unfortunate victims. While it is recognized that the answer to the problem of prenatal substance abuse is abstinence from drug and alcohol use during pregnancy, so far this has been an unattainable goal. Abstinence can only be achieved if the programs for addicted pregnant women can successfully engage them and adequately meet their treatment and service needs.

Given the alarming increase in recent years of the number of infants born with chemical addiction, it can be assumed the resources for pregnant addicted women are somehow failing. This study explores the specific treatment and service needs of thirteen chemically addicted pregnant women, determines to what extent the current resources available to these women are being utilized for treatment and finally from a consumer's perspective, investigates what kinds of resources these women perceive as most useful in terms of addressing their multifaceted service needs.
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CHAPTER ONE

INTRODUCTION

In the last few decades prenatal substance abuse has come to be identified as a serious and rapidly advancing problem. The children born to chemically addicted women not only share the addiction but are often rendered a legacy of physical, mental and emotional handicaps which take a devastating toll in terms of suffering and destruction of human potential.

Different groups have worked hard and significantly contributed to our knowledge and understanding of this complex problem. The biological sciences have proven the relationship between prenatal substance abuse and congenital malformations and disorders. Medical science has made considerable progress in treating the disorders related to in utero chemical exposure. The rehabilitative medical sciences have been able to provide means of diminishing and correcting some of the disabling effects suffered by victims of these disorders. The value of these areas of science and medicine has been vital in first identifying the etiology of the disorders and helping to alleviate some of the consequences.

All the disorders and negative effects associated with prenatal substance abuse are totally preventable through abstinence during pregnancy. To this end the social scientists have made a significant contribution in terms of their discoveries and knowledge concerning the psychological, neurochemical and environment etiologies of chemical addiction. This group has also provided information theories and models for treatment and prevention of chemical dependency. Additionally the social
scientists have given us an understanding of chemical addiction in terms of an illness as opposed to a moral degenerate and deviant condition. This aspect of scientific exploration has been equally valuable in helping to challenge some of the punitive approaches associated with such views of chemical addiction. Currently, there are more compassionate approaches aligned with treatment and prevention of chemical addiction than there were in the past. Unfortunately, one exception to this is the area of prenatal chemical addiction where stigma is one of the greatest barriers to treatment and prevention of the problem.

Thus far the biological, medical and social sciences have played the most significant roles in the area of prenatal substance abuse. Social work has played an important but somewhat limited role, largely confined to the area of child protection issues and placement planning for the children affected by prenatal substance abuse. Given the expertise, principles and values of the profession and its commitment to the welfare of children and mothers, social work is well suited to take on a much more expanded role, particularly in the areas of prevention and treatment. It is evident one of the major problems surrounding the prevention of prenatal substance abuse arises from a lack of appropriate resources which have the ability to successfully engage and treat pregnant addicted women. Professional social workers are well qualified to contribute at every stage of policy, program planning and treatment of prenatal substance abuse. The void in service which now exists affords social work an opportunity to influence the coming changes and programs in a positive, productive manner guided by the unique ethics and skills of the profession.

The impetus for this study comes from my own experience as an obstetrical social worker in the acute care setting of St. Paul's Hospital, Vancouver,
British Columbia. This hospital's medical records indicate the number of infants born to chemically addicted women and adversely affected has increased at a rate of 400% between 1988 and 1989. Upon interviewing the mothers of these children I noted that few had any prenatal care; most have a history of physical, sexual and emotional abuse or some other significant trauma. Nearly all of them have a long history of untreated drug and alcohol problems. The majority of them are from the lower socio-economic strata of society. The tragedy of their circumstance lies not only in the fact that they delivered chemically addicted infants, but that these women seem almost totally bereft of the necessary resources to improve their circumstance and consequently those of their children. Most of the women have few personal resources, friends or family to support them. As pregnant addicts the systems they encounter, including Medical, Child Welfare, Family Court all tend to focus primarily on the baby and for the most part ignore the mother except to make her aware of the expectations being placed on her if she wishes to retain custody of the child. The medical system under law is obliged to report the child's condition to child welfare authorities. Although the report is made to ensure the child's welfare the mother understandably views this as an intrusion and a threat to her custody of the child. The mandates of the Child Welfare and the Family Court systems, while focusing primarily on the child’s welfare are at the same time not able to provide adequate assistance and support and treatment to the mother.

If the mother of the addicted infant is motivated to ask for assistance and support in managing her drug addiction there are a number of barriers preventing her from entering a treatment program. These range from (1) her fear that if she attends
a recovery program this might be taken as an admission of substance addiction by child welfare authorities and used against her; (2) concern that a recovery treatment program would necessitate a separation from the baby at a time when the baby is ill and hospitalized for withdrawal and the mother feels a need to be with the baby; (3) limited financial resources to pay for a program; (4) child care responsibilities for her other children; (5) lack of support by significant other. Even if these barriers are overcome, few existing resources seem appropriate to meet women's needs and none of them provide any intervention (education, teaching, training) concerning the complexities and problems associated with parenting a child exposed to prenatal substance abuse.

These observations indicate that there is a large need that is not being effectively addressed by existing programs. To fully deal with this need requires a program of interrelated studies. My practice as a social worker in a hospital setting has provided me with an opportunity to study one aspect of this whole complex of problems that has so far not been researched at all, namely, the views of mothers of addicted infants concerning the services they require. The primary source of data for the study, therefore, is the observations of the women themselves. A second major source of data is previous research dealing with prenatal substance abuse, particularly the behavioral and social aspects.

In more detail the library study explores the findings in the literature that: 1) link pre-natal substance abuse with tetrogenic effects to the offspring; 2) identify the problems mothers of chemically addicted infants face in terms of parenting; 3) identify characteristics of female substance abusers and 4) identify the special treatment needs of female substance abusers in view of their characteristics and circumstances. The interviews will (1) examine a number of variables such as demographics, current life circumstances, and past experiences that might predispose
women to be vulnerable to substance abuse; (2) explore a number of variables including life style, drug and alcohol habits, and lack of participation in treatment programs that increase the risk of a woman delivering a chemically addicted infant; (3) explore the responses of mothers of chemically addicted infants as to what they see as their treatment and support needs. These issues are further elaborated at the beginning in Chapter III.

The two data sources (library and interviews) are compared to see if the exploratory study supports the findings of the literature. Based on the knowledge generated by the findings, recommendations for policy and treatment models are put forward which will attempt to address the treatment and resource needs of pregnant addicted women with the ultimate goal of reducing the number of children born with chemical addiction and related defects. Special emphasis is placed on the role of social work in policy making and program development as well as treatment intervention.
CHAPTER TWO

OUTLINE OF THE PROBLEM AREA

This chapter includes a review of the literature and my own observations of the various aspects of the problem of prenatal substance abuse. Specific areas will be covered; these include a historical overview of prenatal substance abuse and the consequences to the offspring, the prevalence of the problem, and current resources related to the problem particularly in the areas of treatment of chemically addicted infants, problems associated with parenting these children and finally the treatment and prevention of female chemical addiction.

A. HISTORICAL OVERVIEW OF PREGNATAL SUBSTANCE ABUSE

It is only in the last three decades that scientific research has conclusively demonstrated the damaging effects of prenatal chemical exposure (Abel 1984, 1985; Chasnoff, 1985, 1986; Finnegan, 1981; Smith and Jones, 1973). This occurred most dramatically with the Thalidomide tragedy of the early 1960's where it was recognized that in utero chemical exposure has the potential for producing serious and long-standing tetrogenic post-natal consequences for human development. Since this discovery numerous studies on both humans and animals have investigated and produced evidence supporting the toxic and severely adverse effects of prenatal chemical abuse. One of the longest and most commonly used of these chemicals is alcohol. Before the presentation of scientific proof alcohol had long been suspected and debated as harmful to the fetus.
Abel (1990) cites the first significant historical reference to the awareness of the tetrogenic effects of alcohol as appearing in a petition drafted for parliament by British physicians in 1725. The petition was precipitated by the gin epidemic in England between 1720 and 1750, wherein gin was widely produced, inexpensive and commonly consumed especially among the poor (George 1931). The physicians, alarmed by their observations of the high infant mortality and the ill effects to the health of the children of alcoholic women attempted to promote social reform by making the law makers aware of the effects of alcohol. The following is an excerpt from the letter to the British Parliament drafted by the College of Physicians 1725 (cited by George 1964 and Abel 1990). The letter contains reference to the pregnancy outcome of prenatal alcohol exposure.

We the President and College are commonly of the faculty of Physics in London, who are appointed by the law of this Kingdom to take care of the health of His Majesty's subjects in London and within seven miles of the same, do think it our duty, most humbly to represent that we have with concern, observed for some years past the fatal effects of the frequent use of several sorts of distilled spiritous liquors upon great numbers of both sexes rendering them diseased, not fit for business, poor, a burden to themselves and their neighbours and too often the cause of weak, feeble, and distempered children who must be, instead of an advantage and strength, a charge to their country. We crave leave further most humbly to represent, that this custom both every year increase, not withstanding our repeated advices to the contrary. We therefore most humbly submit to the consideration of Parliament so great and growing an evil.
This observation and attempt at reform proved to be one of the few with respect to alcohol. For the most part, the damaging effects of prenatal alcohol were ignored by science, policy makers, and social reformers until the early 1970's. Alcohol was viewed as a benign habit and was even used therapeutically as (1) a sleep inducer in pregnant women instead of medication, and (2) intravenously to retard premature labour (Little and Erwin 1984).

The surprisingly slow acknowledgement and acceptance of the harmful effects of such a widely used drug as alcohol can be attributed in part to the harsh criticism of some of the first research studies that proposed a link between prenatal alcohol use, birth defects and a high mortality rate. One such study cited by Abel 1990 was carried out by a Liverpool prison physician Dr. William Sullivan in 1899. This was one of the first epidemiological studies conducted. It was a controlled study and involved a comparison of pregnancy outcome between a group of one hundred and twenty female alcoholic prisoners and another group of twenty eight women who were non alcoholic and blood relatives of the alcohol group. The alcoholic group was studied both in and out of prison. The findings of Sullivan’s research revealed that drinking, not genetics (as commonly believed at the time) is the important factor in determining the poor outcome of pregnancy among alcoholic women. The children exposed prenatally to alcohol had only a 44% chance of surviving longer than 2 years of age. Those of the non-alcohol group had a 76% rate of survival. The study also concluded the outcome of pregnancy in alcoholic women was better when they were in prison than when they were out because they were forced to abstain from alcohol consumption during their imprisonment. For its time this was a very progressive and enlightening study pioneering the area of prenatal substance abuse. Other studies by Bezzola (1902) linked prenatal alcohol exposure with retardation. Unfortunately two researchers Haggard and Jillinek in their book Alcohol Explored (1944) criticized the theory which linked birth defects and a high mortality rate to substance abuse. The
following quotation typified the general reluctance of both science and society to accept the growing body of evidence which supported the negative consequences of prenatal and alcohol abuse.

\textbf{In this same category of uncontrolled observations fall the} efforts of those investigators who have tried to gather evidence of idiots and other types of defective children conceived while the parents were said to have been in a state of acute intoxication. Such spectacular studies do not yield valid evidence; they belong more in the realm of rumor mongering than in that of scientific study (Alcohol Explored 1944 cited by Abel 1990).

This attitude continued to prevail until 1973 when researchers Kenneth Jones and David Smith presented indisputable evidence that "patterns of malformations" had been observed in the children of alcoholic women (Jones, Smith, 1973). The researchers set forth the term "Fetal Alcohol" to describe a syndrome which displays a characteristic group of similar facial abnormalities, mental and physical retardation and psycho-motor disturbances in the children exposed prenatally to alcohol. The report was especially significant in that it named the syndrome, identified the etiology and focused the phenomena of Fetal Alcohol Syndrome as a medical problem which could be prevented. Later researchers including Abel (1982), Little, and Ervin (1981), Streissguth, Herman and Smith (1978) produced similar results to those found by Smith and Jones. The following summarizes the findings of these researchers:
1) Fetal alcohol syndrome is characterized by varying degrees of the following head and facial features: short palpebral fissures (eye slits), ptosis or drooping eye lids with paralysis of the third cranial nerve, myopic eyes, low nasal bridge, short nose, long thin upper lip with indistinct or entirely absent philtrum, narrow forehead, underdeveloped mandible (lower jaw) see Figure 1.

2) These children can also have eye and ear anomalies, altered palmor creases and cardiac problems.

3) Growth deficiency which is of prenatal onset continues post-natally. The children are usually below the third percentile for height, weight and head circumference.

4) Central nervous system function manifests in Fetal Alcohol Syndrome children at birth as decreased muscle tone, jitteriness, and decreased bodily vigor.

5) Retardation is one of the most significant and disabling of symptoms. This characteristic like others associated with the syndrome seems to be related in severity to the amount of alcohol to which the fetus was exposed (Dilts, 1970).

6) The research studies found a correlation between the severity of physical effects and the degree of mental retardation.

7) Increased fetal and post natal mortality studies have shown that even very moderate alcohol consumption (1-2 drinks daily) doubles the risk of spontaneous abortion.
FIGURE 1: Facial Characteristics of Fetal Alcohol Syndrome
Elizabeth J. Ives has collated the results of numerous pathogenic studies as displayed in Figure 2. The model and studies they were drawn from indicate that alcohol freely crosses in the placenta. The research of Dilts (1970) indicated blood-alcohol levels in the fetus are approximately equivalent to the blood-alcohol levels of the mother. Further research however by Pelkmen (1984) shows that the effects are more damaging on the fetus because it does not have the same capacity as an adult to metabolize the alcohol as thoroughly and quickly. This leads to two more important issues investigated by Adel (1984), Jones and Smith (1983) and Mondonaro (1989) regarding how much alcohol can safely be consumed without impairing fetal development and during which time period(s) of the pregnancy there is the most potential for fetal damage. The researchers concluded that there is no safe limit and fetal damage is time and dose related. Structural abnormalities, for example, are the results of in utero alcohol exposure during organ genesis in the first trimester. This is especially important since the first trimester is the time period a woman is least likely to be aware of the pregnancy. Mondonaro (1989) concludes as little as two ounces alcohol per day can result in full blown Fetal Alcohol Syndrome.

Most of the research concerning Fetal Alcohol Syndrome has focussed on the effects to the fetus and clinical identification of the syndrome in the infant. Only a few studies have examined the long term debilitating effects of Fetal Alcohol Syndrome on the older child and adult. There are several possible explanations of the limited research in this area:

1. Because the syndrome was only so recently identified it is highly probable that many adult cases of Fetal Alcohol Syndrome were never recognized and
Maternal alcohol intake

IN FETUS:
- Increased cell death
- Impaired cell division
- Abnormal cell migration

Growth deficiency

Interrupted embryonic processes
Characteristic facies
Impaired development of brain
Prenatal growth retardation
Microcephaly
Postnatal growth retardation

Structural malformations
Deficiencies in intellect and CNS integration

FIGURE II: Effects of Prenatal Alcohol Ingestion (Elizabeth Ives 1987)
diagnosed or possibly misdiagnosed in terms of etiology as in the case of retardation. Even today, few physicians, including pediatricians and obstetricians have adequate training in diagnosing the syndrome.

2. Often the identifying features of Fetal Alcohol Syndrome are only subtly manifested (i.e. the characteristic facial features) especially in an infant (Streissguth, Clarren, Jones 1985). These features share a similar appearance to that of Down’s Syndrome.

3. Other characteristics of the Syndrome such as learning disabilities, central nervous system abnormalities and retardation are often not noticed at birth.

The failure to identify those children affected with Fetal Alcohol Syndrome is tragic in that they are not given the opportunity of involvement with the therapeutic and rehabilitative resources which can help to diminish and correct their disabilities especially in the area of speech, learning and behavioral disorder.

One of the most informative studies on older Fetal Alcohol Syndrome children was carried out by Streissguth, Clarren and Jones (1985). It involved a follow-up study of ten children diagnosed with Fetal Alcohol Syndrome ten years later when they were adolescents. The findings of the study indicated:

1) a high mortality rate - 2 out of 10 of the children had died
2) a high rate of maternal mortality - 6 out of 10 of the children’s biological mothers had died
3) the facial features which characterized the syndrome in the children at the time of diagnosis persisted 10 years later
4) all of the children had height deficit for their age
5) many of the children developed hearing and vision problems
6) their IQ's ranged from severe retardation to dull normal intelligence
7) the degree of retardation remained consistent with the severity of facial feature abnormality.

One very important finding of this study concerned the recognition of the syndrome and the resultant treatment the children received. The more severely handicapped children were more often recognized as having disabilities by their families, the educational and medical systems and were placed in appropriate programs and special educational classes to accommodate their disabilities. Those children with less obvious disabilities, more normal appearance and higher intelligence were generally not acknowledged as handicapped and were consequently, expected to function in the school system and their social environment with no intervention to accommodate their handicaps. This group of children compared to the group identified as handicapped had far greater difficulty with life adjustment particularly in the area of the school system where problems with conceptualization, problem solving and memory were manifested. They consistently had problems with maladaptive behaviors, dropped out of school early, and were described by teachers as behavior problems.

Two later studies using larger samples and conducted by Streissguth, La Due Randels (1987) produced similar results to the first study. The findings of these studies have some important implications. The research indicates children most obviously handicapped fare the best in terms of supportive and rehabilitative intervention. Therefore there has been some progress in addressing the problem in
terms of treatment. However it is essential to extend these effective interventions to all Fetal Alcohol Syndrome children. This of course requires the prerequisite of accurate diagnosis which in turn requires education of Health Care professionals and educators. The study also reveals some of the special needs of the Fetal Alcohol Syndrome children who appear less obviously handicapped. Most importantly, the consequences of not recognizing their disabilities and providing them with the resources to manage their handicaps are evident in the difficulties and problems these children encountered. Once the diagnosis of Fetal Alcohol Syndrome is made it must be passed through the systems the child will come in contact with during his or her life-time, i.e. the school system, and the child's community. It is hoped such knowledge will promote understanding and acceptance and facilitate proper treatment. Finally another important implication is the high mortality rate of the mothers of Fetal Alcohol Syndrome children. These children have been doubly handicapped first by the tetrogenic effects of alcohol and secondly by losing a natural parent. The high mortality rate, presumed to be related to alcohol abuse further reinforces the need to address these problems through prevention of substance abuse.

The collective studies in the area of Fetal Alcohol Syndrome have precipitated a dramatic change in attitude toward prenatal substance abstinence in a relatively short time. This is reflected in the difference between the medical statements of Dr. Ashley Montague in 1965 based not on research but his own opinion that no matter how great the amount of alcohol taken by the mother...the development of child will not be affected. (p. 114) Life Before Birth and a later warning delivered by the Surgeon General of the United States, 1981, that pregnant women should abstain from alcohol during pregnancy (from U.S. Department of Health and Human Services Report to the President and the Congress on Health Hazards Associated with Alcohol. Drinking and Pregnancy).
The studies on alcohol abuse in pregnancy have led to the investigation of other substances which are potentially dangerous to the fetus. Prenatal use of addictive and commonly used substances during pregnancy include: narcotics (heroin, opium, methadone, cocaine), marijuana, hashish, as well as therapeutic medication: antipsychotics, benzodiazepine, anti-depressants, and finally caffeine and nicotine. Some of these drugs are illicit but many are prescribed by physicians and some such as retalin and talwin are prescribed medication, but are used illicitly on the street. Prenatal ingestion of these drugs particularly heroin, methadone, retalin and talwin, cocaine and its free base (crack) taken singly, or in combination with alcohol are responsible for another syndrome, Neonatal Abstinence Syndrome which affects newborn infants. The research of Mirkin and Singh (1976), Jackson (1985), Jink et al (1981) conclude these drugs have the same ability as alcohol to cross prenatal barriers. Szeto's research (1982) reveals there is a significant difference in the rate and extent of fetal drug exposure depending on the drug; narcotics for example are rapidly distributed to the fetus and fetal brain after maternal administration, however this was not found to be the case with marijuana. This explains why such drugs as heroin, methadone and cocaine have far more devastating effects on the fetus. The chemically dependent baby experiences withdrawal symptoms similar to those of an adult. The symptoms can include: convulsions, seizures, tremors, sneezing, diaphoresis, vomiting, feeding difficulties, incessant shrill crying, hyperactive reflexes, low excitability threshold, inadequate weight gain, and diarrhea (Finnegan, 1981, Chasnoff, 1982). The withdrawal symptoms can begin manifesting at birth, reach a peak from 3 to 14 days and persist in a sub-acute form from 4 to 6 months (Finnegan 1985).
Various drugs are associated with additional risks to the infant. The research conducted by Rementeria (1973) shows infants born to heroin addicted women had an eight times higher rate of still-birth and sudden Infant Death Syndrome than that of the general population. Other problems associated with heroin include first trimester spontaneous abortion and premature delivery. Cocaine is associated with prenatal cerebral infarctions or strokes, cardiac and central nervous system malformations, (Chasnoff 1988). A drug such as nicotine, generally considered to be relatively harmless has been linked by research to low birth weight, miscarriage, deficit reading ability in the offspring, and increased rate of infant mortality (Butler 1973, Himneburg 1978). Caffeine has been shown to interact with the fetus metabolism and to affect neurotransmitters in the brain as well as various hormonal systems (Wethershee 1977).

B. Prevalence of Prenatal Substance Abuse

Fetal Alcohol Syndrome and Neonatal Abstinence Syndrome have been reported all over the world; the syndromes are known to all races and socio-environment groups. It has proven very difficult to obtain an accurate account of the prevalence of Fetal Alcohol Syndrome; at best there are only estimates in terms of the general population. Here again a large part of the problem is failure to diagnose the syndrome by health care professionals. Another contributing factor is the difficulty in diagnosing Fetal Alcohol Syndrome. Under normal circumstances after delivery, the mother and infant remain in hospital only a few days. Research shows that in the case of alcohol exposure newborns metabolize alcohol at about half the time rate of an adult (Dilts, 1970). This means that the child requires twice as long to clear its
blood of alcohol, therefore withdrawal symptoms will also take longer to appear; by this time the infant and mother are discharged. If the mother is unaware or unable to identify withdrawal or if she is afraid of the consequences of revealing the child's withdrawal it is unlikely she will seek help. Another prohibiting factor to disclosure of Fetal Alcohol Syndrome is the mother's feelings of guilt and shame which can prevent her from seeking help for her child even if she suspects Fetal Alcohol Syndrome. The other major impediment to determining the number of Fetal Alcohol Syndrome infants is the high post natal mortality rate (Herbst and Baird 1984). However various researchers have presented some statistics. In one study Abel and Sokol 1987 estimated the overall average incidence of Fetal Alcohol Syndrome at 1.9 per 1000 live births; the reported rates in the United States was 2.2 per 1000 and 1.8 per 1000 in Europe and other countries. In Canada and the United States the research indicates race and site are the main determinates of incidence of the Syndrome. The studies of Dr. Asaunte involving Yukon and North Western B.C. Native and non-Native people revealed that the rate of Fetal Alcohol Syndrome is alarmingly high in the Native population. (Asaunte 1981).

Table 3: Prevalence of Fetal Alcohol Syndrome (Asaunte 1981)

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<tr>
<td>Northwest BC</td>
<td>25/1000</td>
<td>.4/1000</td>
</tr>
</tbody>
</table>
In the United States the highest number of cases of Fetal Alcohol Syndrome came from areas where the majority of mothers were black or Native Indian and their socio-economic status was low. The estimated rate at these sites was 2.6 per 1000 births while a rate of 0.6 per 1000 was reported in areas where the mothers were caucasian and of middle socio-economic status (Abel 1990). The highest reported incidence of Fetal Alcohol Syndrome was among the Apache and Ute tribes where the rate was estimated at 19.5 per 1000 births (May et al 1983).

Medical and Public Health programs consistently report annual increases in the number of Neonatal Abstinence Syndrome infants diagnosed and treated. In Canada there are no national statistics available to define the number of Neonatal Abstinence Syndrome infants born each year. In the United States some child abuse studies have provided some data. A survey carried out by the Child Abuse Prevention Program Department of Health in Los Angeles, California revealed that in 1985, 538 cases out of a total of 5973 cases of reported child abuse involved neonatal withdrawal. Another study conducted by the Illinois Department of Children and Family Services in 1986 found that 55 percent out of a group of 385 children who had become wards had parents who were substance abusers and 11 percent of these children had serious medical problems (e.g. seizures, respiratory distress, abstinence at birth) related to prenatal substance exposure. A number of studies have estimated that between 70% to 90% of the infants born to narcotic-addicted mothers undergo some degree of withdrawal (Harper et al 1973). Most studies conclude that the scope of the problem is underestimated because of unreliable and inaccurate reporting by women. It is suspected this is due to the illicit nature of acquiring the drugs and the stigma attached to drug usage.
C. Current Issues

As the research shows, science has made remarkable progress in the area of studying the effects of prenatal chemical abuse. However there are a number of other issues associated with the problem, some of them have been dealt with much more comprehensively and effectively than others and include:

1) treatment for the Neonatal Abstinence Syndrome and/or Fetal Alcohol Syndrome child
2) problems with parenting Neonatal Abstinence or Fetal Alcohol Syndrome children
3) treatment and prevention of prenatal substance abuse

Each of these issues will be discussed.

Treatment of Neonatal Abstinence Syndrome and Fetal Alcohol Syndrome

For the most part treatment of Neonatal Abstinence Syndrome and Fetal Alcohol Syndrome has focused primarily on the clinical symptoms of the disorders and to some extent ongoing rehabilitation to address the long term disabilities associated with the syndromes. Far less attention has been paid to prevention of the problem. Treatment centres for Neonatal Abstinence Syndrome and Fetal Alcohol Syndrome infants are relatively rare, especially in Canada. When chemical addiction is diagnosed the infant is treated for withdrawal in a special care nursery. The program involves medically supervised withdrawal of the infant often requiring the
administration of opium or morphine to ease withdrawal symptoms. The environment the child is placed in is one of low stimulation (i.e. dark and quiet) until the child is ready for a normal environment (Lauridesen-Hoegh). The parents and care givers of Neonatal Abstinence Syndrome infants are provided with training and support to meet the special needs of these children. However, there are few physicians trained in the treatment of Neonatal Abstinence Syndrome and the actual numbers of infants referred for treatment are very small and predominantly confined to urban centres. This means that children in rural areas, where virtually no treatment centres exist, are not treated.

After completing the initial withdrawal the chemically addicted infant often requires ongoing rehabilitative resources to address developmental deficits. These needs can be comprehensively dealt with by infant development programs which are staffed with skilled professionals including physiotherapists, speech therapists, social workers, teachers, nurses, and nutritionists who specialize in assisting the child and supporting the family in treating the child’s speech, learning, behavioral and physical deficits. However these resources generally report that extremely small numbers of Neonatal Abstinence Syndrome and Fetal Alcohol Syndrome are referred even in urban areas. In British Columbia only 23 Fetal Alcohol Syndrome infants were referred to the Infant Development Programs Services in 1988. This suggests a lack of knowledge among health care professionals, teachers and counsellors, about the services available. It also suggests a need for a more formalized referral system or perhaps a registry of all children having or suspected of having syndromes wherein resources such as Infant Development Programs could screen for their own referrals by having access to the registry.
Problems Parenting Neonatal Abstinence Syndrome Children

Statistics show, that of those that are identified and treated, about two-thirds of Neonatal Abstinence Syndrome infants are apprehended by child welfare authorities or relinquished for adoption by the time they are discharged from the initial treatment centre (Lauridesen-Hoegh 1991). These children are placed in the care of foster parents who have been carefully screened and trained to meet the ongoing therapeutic and care needs the children require. They are later placed for adoption with parents prepared to adopt special needs children. The other one third of the Neonatal Abstinence Syndrome infants are discharged to the care of the natural parents. Much of the literature has addressed the special problem of chemically addicted infants in the care of addicted mothers.

From a parenting perspective chemically addicted infants are difficult to care for. They are often irritable, unresponsive, avert their eyes to avoid contact, and arch their back stiffly. The child manifests these behaviours out of an intolerance for stimulation and central nervous system affectation caused by in utero exposure to drugs. However these behaviours tend to make the mother feel a sense of personal rejection and can interfere with her ability to bond with the baby enhancing her sense of failure and inadequacy. These variables tend to make the mother feel insecure and anxious and increase the risks of child abuse and neglect. This problem is even more challenging if the child has ongoing behavioral and learning disabilities.

The problem of parenting these children is complicated by another factor which according to the research is often found in the life experiences of chemically addicted women. The research of Benedek (1970) Car (1977) and theories of writers Kellogg (1990) and Bradshaw (1988) all support the view that parental self-concept is a product of past childhood experiences. Child abuse, be it physical, emotional and
or sexual, render the children unresolved psycho-social conflicts which they carry into adulthood. Histories of abuse are very prevalent among mothers of chemically or sexual, send the child unresolved psycho-social conflicts which they carry into adulthood. Histories of abuse are very prevalent among mothers of chemically addicted infants. The researchers also postulate that unless the parent who has a history of abuse successfully works through the past childhood trauma they invariably possess a negative parental self-concept. Consequently, mothers with the least potential for a positive self-concept as parents are in a position to parent a child with special needs. This scenario serves to enhance the mother's sense of failure as a parent even further.

The mother of a chemically addicted child is handicapped not only by past unresolved trauma but by a sense of remorse and guilt regarding the baby's withdrawal and medical condition. It is a popular misconception that women who abuse drugs prenatally have little sense of caring for the child's health and well-being. Addicted mothers often feel extreme remorse and self-persecution which is enhanced by the psychological battering they sometimes encounter from the public, the health care system, child welfare officials and the judicial system as well as individuals within their own personal support system such as spouses and other family members.

Another factor which has been shown to increase the mother's difficulty in parenting is the interference with the bonding process. Rosenbaum (1979) discussed the theory of infant-mothering bonding as a crucial process in their relationship. For bonding to occur the infant and mother must be together in the first days after birth. In the case of an addicted baby this process is often interrupted. Because of the need for treatment, the baby is placed in an intensive care nursery and separated from the mother while detoxification and therapy are carried out. The mother is discharged
from hospital. Despite the fact the mother is encouraged to visit during the child's hospitalization to promote bonding, the mother is often reluctant because of guilt and fear of stigma associated with having an addicted infant. Thus bonding is impaired making parenting even more difficult for the mother. It is at this time, more than ever, that the mother needs support and acceptance.

A final impediment to successful parenting is the general lack of an adequate personal support system for the addicted mother. She often has little or no contact with family of origin. Abusive spousal relationships are not uncommon and her friends are often involved with drugs and/or alcohol. The mothers who come from abusive and dysfunctional families often have not had adequate parental role models and as a result they are often lacking in parenting and nurturing skills. The people in their support system often have the same history of poor parental role models and can offer little or no assistance. These women are highly disadvantaged in view of parenting. Many factors both circumstantial and psychological contribute to their failure in this area. This problem, like the problem of Neonatal Abstinence Syndrome and Fetal Alcohol Syndrome can be addressed at many levels but the most effective is primarily prevention and secondarily treatment of female chemical dependency.

Treatment and Prevention of Female Substance Abuse

Most of the research and literature on female chemical dependency is concerned with women who are engaged in treatment programs largely because it is easier to study this more accessible group. However statistics show that a much smaller proportion of women than men participate in treatment programs; the
current proportion of women to men varies from 1:2 to 1:10 (Reed 1987 and Ferrance 1980). It can be assumed from this that a large proportion of chemically addicted women are not engaged in treatment. It is also important to point out that much less research has been carried out on women who are chemically addicted but who are not involved in treatment programs. There is even less research on pregnant addicted women. In examining the issue of treatment and prevention it is necessary

1) to understand the factors (emotional, psychological and circumstancial) which are characteristic of women who abuse chemicals

2) to explore one of the correlations characteristically observed in chemically dependent women that being the link between unresolved past trauma and addiction; this is especially important as unresolved trauma has already been identified as problematic in parenting for mothers of chemically addicted infants

3) to explore the reasons why few women participate in existing treatment and prevention programs

4) examine ways chemical dependency treatment programs can be developed to provide services that effectively reach more pregnant women in a treatment context compatible with their needs and orientation.

Each of these areas will be discussed.

1) Most of the studies conducted with the purpose of defining factors associated with female chemical dependency and defining women's treatment needs have generated
similar findings. Bieschnier, Reed and Mondanaro (1981), and Wilsnack and Beckman (1984), reported in their studies that chemically dependent women display lower levels of self-esteem, and higher levels of depression and anxiety. These psychological qualities have an effect on the kinds of programs women require for treatment. The prevalent treatment models and practices of most programs for substance addiction are influenced by the perception of alcoholics or addicts as people trying to protect self-esteem by denying the consequences of their behaviour, rationalizing their behaviour and projecting blame for the negative consequences on to others. The research suggests these characteristics are more common among male drug abusers and rare in female drug users (Bean 1982). Women tend to feel responsible for their circumstances and take on blame. Pregnant women tend to be even more vulnerable to this because of the added guilt associated with being responsible for the addiction of their children. While the treatment models designed on the principle of confrontation regarding denial of addiction and owning the consequences of addictions may be fairly effective with men they have proven to be quite devastating for women. Confrontation models only serve to increase depression and lower women's self-esteem. The depression and low self-esteem are immobilizing and when increased in confrontational therapeutic environments the woman's potential for recovery is diminished. Therefore the goal of treatment programs for women must be to lessen not increase these feelings of depression and low self-esteem and enhance a sense of strength and control.

Chemically dependent women's motives to enter treatment and the problems they perceive relating to alcohol are usually centred around health and family issues (Blume 1986 and Reed 1987). These women view their abuse of drugs as a means of coping with problems (i.e. family, relationships, health, emotional
difficulties as well as poverty and violence). Women tend to view their problems, not substance abuse as the "real" problem and seek help from resources in the area of health and relationship counselling. The challenge facing therapists in treating women lies in understanding the process of how women define their problems and their approaches to seeking help. From this, it is essential chemical abuse is dealt with within the context of what women define as the problem. This is evident in the statistics collection by Beckman (1984) in a study which revealed sixty-five percent of women alcoholics in Ontario were receiving intervention from general service agencies as opposed to drug and alcohol programs.

Another factor associated with chemically addicted women is that often they are in a relationship with a partner who is also addicted and they have friends who discourage their participation in recovery programs (Mondonaro 1989). The lack of support can be an impediment to a woman's participation in a recovery program.

2) Research studies have identified a link between post traumatic stress syndrome, which is characterized by persistent problems with fear, anxiety, depression, anger and a tendency for chemical addiction (Van der Holk and Herman 1987, Coleman 1987, Schaefer and Evans 1987). Post Traumatic Stress Syndrome is the result of unresolved emotional, physical and/or sexual abuse, it can also include death of a parent at a young age, divorce of parents, failed adoption. However most often it is associated with violence toward the victim and has a profound impact. Gomberg (1986), supports these findings in that his research found that women tend to date the onset of pathological drinking to a particular stressful event. These women are also
more likely to have histories of both suicide attempts and previous psychiatric treatment.

Another characteristic of chemically dependent women is that they usually experience trauma and disturbance in family of origin relationships at a relatively young age (Ryan 1979). As the years go by and the trauma is unresolved these women develop a learned helplessness in adulthood which Ryan points out is also prevalent among chemically addicted women. These women feel guilty and somehow responsible for their past experiences and believe there is nothing they can do to change their present circumstances. Margaret Sandelowski in Women Health and Choices 1981 emphasizes that a woman's capacity to change is largely based on certain resources available to her which include a sense of power, socio-economic status, and level of education. Victims of chemical addiction and unresolved trauma often, but not always, have limited education and are of the lower socio-economic status of society. They have a diminished sense of personal power as a result of the psychological effects of unresolved trauma. Consequently they have a strong sense of disempowerment and feel they have little control in their lives. This profile explains their tendency to function in terms of survival, not self-improvement and self-control. These factors along with a pervasive sense of helplessness makes them less inclined to seek help for either the trauma or the chemical addiction. Consequently they must be engaged. Treatment programs as they currently exist, generally require that the participants seek help and show motivation for recovery. This is extremely difficult if one feels helpless and disempowered. There has to be more of an effort made to engage these women with an attitude of support and encouragement.

Even if women who are victims of Post Traumatic Stress Syndrome do try to participate in treatment programs the literature suggests most of these programs
fail to address the problem of Post Traumatic Syndrome within the context of and relationship to substance abuse. Even though the research shows a strong link between chemical addiction and Post Traumatic Stress Syndrome in many treatment settings the traumatic events are not attended to in diagnosis and treatment planning (Coleman 1987, Yandow 1989). Some researchers have found a reluctance on the part of clinicians to address issues of violence (Rose 1986).

3) From the preceding discussion it is evident that one of the main reasons women are not attending treatment programs is that the existing programs do not have the resources, knowledge, skills to provide appropriate services particularly in the area of addressing substance addiction in conjunction with unresolved trauma. Most treatment models were designed for men based on an understanding of their treatment needs and do not provide an adequately supportive, nurturing environment wherein women can feel safe to address their issues.

Another barrier preventing some women from entering a treatment program is child and family responsibilities. There is considerable evidence in the literature that a high percentage of women who require chemical dependency treatment have dependent children and child care responsibilities. In a study conducted by Beschner, Reed and Mondanaro (1981) nearly seventy percent of women in the drug treatment services surveyed had children and child care responsibilities. These women must draw on other resources, which for the most part are very limited, to obtain support and assistance if they wish to enter a residential or day treatment program as there are few programs that offer care for the children.

Mondanaro (1976) and Fanshel (1975) have documented the need for parenting services, nursery care, counselling and instruction in how to assist addicted
women in learning how to fulfill the role of parent. Mondanaro (1976) reported that female drug abusers have both cognitive limitations and effective needs and conflicts that impair their parenting ability. (Cognitive limitations include not knowing how to care for their children.) These problems are further complicated if the mother has a Neonatal Abstinence Syndrome or Fetal Alcohol Syndrome child with special needs. If the child is in treatment or handicapped and if the mother is trying to cope with the demands of the child welfare system she will require support and education to deal with these challenges. These kinds of circumstances and needs of chemically addicted mothers of Neonatal Abstinence Syndrome children indicate another area for special treatment services which is not addressed in existing programs.

Another important area not often addressed in chemical dependency treatment services is the fact that women more so than men have medical disorder and treatment needs related to chemical abuse. Bourne and Light 1979 after reviewing several studies found that certain alcohol related diseases are more prevalent among women than men; these include, cirrhosis of the liver, gastrointestinal hemorrhage, pancreatitis, hypertension and cardiovascular disease. Women also suffer from the "telescoping affect" of alcohol, that is their alcohol related disease develop at an accelerated rate as compared to men (Hill 1984). Few alcohol and drug services provide medical services despite the fact a high percentage of women entering drug treatment have medical problems. Mondanaros (1989) found that 69 percent of the women entering alcohol and drug treatment cited physical (problems) as the reason for entering treatment and 75 percent of the women had medical problems. Even fewer programs are prepared to address the specialized obstetrical needs of pregnant addicted women which can include supervised withdrawal from drugs such as heroin or methadone.
Another issue which presents a barrier to treatment has to do with medical practitioners attitudes towards female addiction and its treatment. This is important because it is evident from the previous discussion that addicted women have considerable medical needs. The physicians who treat them are in a key position to promote and facilitate treatment by first identifying the dependency and acknowledging the need for chemical dependency treatment. A large part of the problem stems from a tendency by physicians and other health care professionals to view alcoholism and other drug addictions as "secondary" to the primary medical problem or to deny the addiction exists. Beckman and Amaro (1984) found that fifty percent of the women attending one AA program who attempted to discuss their problem of alcoholism with their physicians were told by the physicians they did not have a problem with alcohol.

There is also a tendency to give a primary diagnosis such as depression or stress and ignore the drug addiction. The primary diagnosis is usually treated chemically and substance addiction is not addressed. This happens for two reasons; one is that physicians and health care workers who are usually not trained in addictions tend to view addiction as peripheral to their intervention of the real "medical problem" and secondly, there is considerable stigma attached to female addiction as compared to men. It is far less socially acceptable for women in our society, especially pregnant women, to be labelled chemically addicted than it is for men. There is a tendency to try to protect women from the stigma by avoiding the issue of addiction. While this may appear to be a kinder approach by health care professionals it is not helpful to these women in terms of supporting them in dealing with their addiction and its serious consequences which include: a high mortality rate among addicted women - 2.7 to 7 times that of the general population, Hill 1984)
delivery of Neonatal Abstinence Syndrome and Fetal Alcohol Syndrome infants and living chaotic unhappy lives. The general reluctance to acknowledge female addiction is a very significant factor to the underdeveloped resources in this area.

Women report another area of concern is that they often do not feel safe and supported emotionally in mixed treatment groups (Blume 1982). Some report feeling sexually exploited and further victimized. If they have past issues of sexual or physical abuse to deal with, these women already feel guilty but to add to this many feel men in these groups tend to reinforce the attitudes of blame and female responsibility for their traumatic histories.

One final reason which prevents many women from entering treatment is inadequate financial resources. Many chemically addicted women do not have the financial resources to enter a treatment program unless the program is subsidized. Their low economic status may also indicate the woman has more immediate needs such as obtaining shelter, food, and clothing before she can enter a treatment program.

4) The research and literature support the findings of Senay (1983) who noted that considerable knowledge has been gathered concerning women treatment needs but as yet this has made little impact on the development of programs. There have been less attention paid to the research and development of resources for pregnant addicted women, although many of the treatment service needs of pregnant addicted women are consistent with the needs of addicted women in general. The first group has a number of additional needs as indicated in the preceding discussion.

Two social theorists Reed (1987) and Mondonaro (1989) point out the development of treatment programs which are sensitive to the needs and effective in
terms of outcome is not as simple as adding new components to existing programs. Theoretical and organizational changes must take place as well as the development of a founding philosophy if these programs are to deal with the barriers which prevent women from entering treatment and to provide treatment within a context that is consistent and compatible with the special needs, psychological characteristics, and roles of chemically addicted women who are at risk or who have delivered addicted infants.

It is understandable why more treatment programs have developed for men. The behavioral problems associated with male addiction such as violence, crime, fighting are generally considered more costly and dangerous to our society (Reed 1987). Therefore, investing in programs to address these problems is considered prudent. Women substance abusers are generally involved in less acting out activities and tend to be more self-destructive. Pregnant women especially tend to become very isolated and non-visible during their pregnancy. However, the consequences of this are no less damaging to our society when we consider: a pregnant addict usually get little or no prenatal care which renders her a high risk pregnancy and increases the chances of medical problems for herself and her child. Her isolation limits her chances of being referred for chemical addiction treatment, and finally her addiction which is not addressed can have both short term and enduring damaging effects on the baby.

Despite the current state of limited resources for women there is growing awareness that pregnant women could benefit from programs sensitive to their needs. Treatment programs should be less confrontative and adopt more supportive approaches to the needs discussed earlier which include: treatment of chemical dependency in conjunction with past unresolved trauma; emotional support for
feelings of low self-esteem, depression, and helplessness; acknowledgement concerning the addiction; freedom from stigma associated with female drug addiction, and provisions for medical needs. Also because women place significant importance on relationships and often associate their chemical dependency problems with family and relationship problems, treatment programs must include their children, partners and significant others. Women only groups and treatment sessions must be provided wherein women can feel safe to express themselves.

The literature reviewed in this Chapter is the basis for the following research study which investigates the service and treatment needs as evidenced by a sample of mothers of chemically addicted infants. Specific issues will be outlined in the following Chapter.
CHAPTER THREE

THE RESEARCH PROBLEM: MAJOR TOPICS

This chapter will provide a description of the research topics that are explored in this study and the rationale for their selection. Five topics have been selected. Each one will be presented in turn and where relevant linked to the literature review in the preceding chapter.

1) The Symptoms of the Neo-natal Abstinence Syndrome

The review of the literature in Chapter Two indicates a relationship between prenatal chemical abuse and shared chemical dependency in the offspring. This is a working assumption of the study and one of the goals is to see if the data collected in the study is consistent with this assumption. Since the women in the study are known to be chemically dependent we would expect a high rate of Neonatal Abstinence Syndrome symptoms to appear in their offspring. A description of the symptoms and problems is provided here to give a measure of the severity of the problems in the sample selected for the study.
2) **Demographic Characteristics and Patterns of Drug Use of Women Who are Most at Risk of Delivering Chemically Addicted Infants**

The purpose of gathering this data is to provide information which will assist in identifying target groups and planning programs which address the needs of these women. The questions investigated concerning this issue involves (1) the demographic characteristics of women who are at risk of delivering a chemically addicted infant; (2) their pattern and history of chemical abuse both before and during the pregnancy; (3) which drugs used by the mother precipitate addiction in the infant; (4) the extent of the mother's prenatal awareness of the risks of prenatal exposure to drug and alcohol.

3) **The History of Emotional, Sexual and/or Physical Trauma of Women Who Deliver Chemically Addicted Infants**

The literature suggests women associate the onset of drinking with traumatic incidences (Gomberg 1986). Other studies reveal that unresolved past trauma results in depression, anxiety, low self-esteem - all characteristics of female substance abusers (van der Holk and Herman 1984, Coleman 1987). Trauma in this study is defined as the experiences of significantly stressful events or situations including death of a parent, failed adoption, ongoing emotional, physical and, or sexual abuse. The goal of the investigation is to see how far these patterns are borne out in the sample used in this study. This part of the investigation also explores what factors in the prenatal substance abusing womens' history and current life circumstances are associated with and may contribute to the substance abuse. This
leads to consideration of whether or not issues of past trauma are dealt with or should be dealt with in terms of alcohol abuse in treatment programs. This data provides additional information regarding pregnant addicted women's treatment needs.

4) The Failure of Alcohol and Drug Treatment and Rehabilitative Resources Available to Mothers of Chemically Addicted Infants to Engage Them Because These Resources Do Not Effectively Address the Multifaceted Needs of These Women

The literature indicates female substance abusers have different physical, psychological and emotional dynamics to their illness than the men (Breschner, Reed, Mondanoso, 1981, Wilsnack, Beckman, 1984). It also suggests that women have different histories of what they see as the cause and onset of substance abuse. The evidence so far is that the prevalent models for most treatment programs are ineffective for women, especially in terms of the psychological aspects of female substance abuse. Many women report that they find some treatment programs, especially those based on the confrontational models, harsh and affrontive to their already diminished sense of self-worth. (Beckman and Amaro 1984, Beshner, Reed and Mondanaro 1981). They need programs that provide an environment of safety, to support and promote their sense of strength. The literature also suggests that women define their problem with alcohol in terms of other problems - usually traumatic events. They also seek help from resources they feel deal with the problem as they define it. Consequently if the problem as they see it is not substance abuse but depression, anxiety or past trauma, they will fail to seek out resources that address the problem of substance abuse. Given the low levels of motivation and low self-esteem coupled with the shame and guilt associated with physical, sexual and emotional trauma many addicted women do not seek help even from sources they
would tend to identify as potentially helpful, that is, psychiatric and counselling services. This area of the study investigates whether or not women in the sample are utilizing the existing resources of alcohol and drug treatment or if as the literature suggests they are not participating in existing treatment services.

The literature and my own clinical experience indicates the needs of these women are multifaceted and include not only treatment for drug and alcohol addiction and past trauma, but assistance with dealing with such systems as Child Welfare, legal and medical systems (some of which these women find judgemental, demanding and intimidating). Also included in these service needs are assistance with finances, housing, child care and emotional support. This part of the investigation will determine if the women in the sample identify similar needs for service as those suggested in the literature and perceived by clinicians or if they assess their service needs differently. Underlying this investigation is the goal of exploring and finding which resources and approaches are necessary to facilitate useful resource development and sensitive, compassionate intervention.

The following chapter will outline and examine the methods used to investigate the five issues discussed in this chapter and to analyze the data for evidence of support of conclusions drawn from the literature and my own clinical practice.
CHAPTER FOUR

RESEARCH METHOD

A. Research Design

The study is both exploratory and descriptive, as summarized by Reid and Smith (1989). The research design is "naturalistic" since no experimental manipulation of variables occurs. It makes use of a single sample, studied at one point in time. This sample is homogeneous in the sense that all cases included, exhibit the Neonatal Abstinence Syndrome. There is no comparison with other samples. In methodological presentation the study is both qualitative and quantitative.

The study employs two types of reporting: 1) self-reporting by the respondents; 2) assessment of data abstracted from medical charts. The self-reporting relies on the respondent's memory perceptions, observations and opinions regarding events and factors associated with past and current unresolved trauma, use of resources, knowledge of neonatal abstinence syndrome. The data from medical charts is a description of symptoms associated with neonatal abstinence syndrome in the infants.

B. Sample

The population the sample is drawn from consists of all the women admitted to St. Paul's Hospital between December 1, 1990 and May 30, 1991 who delivered chemically addicted infants and who were referred to the hospital social
work department for assistance. Each of the seventeen women in the population was asked to participate in the research project. The sample consisted of thirteen women in the population who agreed to participate in the project. Those subjects not included in the research are - two women who did not wish to participate; and one woman who because of mental illness was unable to participate. The women were asked to participate in the research only after the social worker's intervention was completed. The reason for this sequence of events was to avoid any conflict of interest wherein a mother might feel obliged, for whatever reason, to participate in the research if the request was made during the social worker's professional intervention with the client.

It should be noted that this sample, being drawn from a clinical population cannot be used to estimate the incidence or prevalence of Neonatal Abstinence and or Fetal Alcohol Syndrome or to compare subpopulations on prevalence and incidence.

C. Data Collection

A survey of measures did not reveal an instrument designed to explore the issues stated in this research therefore an instrument for this was designed by the interviewer. A structured guided interview was selected because of the sensitive nature of the topic. It was assumed that a mailed questionnaire would not provide a good response rate because of (1) the transient nature of the population (2) the difficulty reaching this population due to a general tendency to isolate and withdraw especially from public institutions and (3) the nature of some of the questions required discussion in an emotionally supportive context. The structured interview was also most appropriate given the circumstances of the respondents at the time they were asked to participate; that is, respondents were already known to the research interviewer due to previous intervention. In fact much of the material covered in the
interview was explored previously within the context of professional client intervention between the interviewer and the respondent. Many of the questions asked during the interviews were very personal and self-disclosing and required a trusting relationship between interviewee and interviewer. This relationship had already been established in previous work and continued into the project. The structured interview format provided the best medium to provide support, where appropriate, to the interviewee and obtain qualitative data by presenting a question then allowing the respondent a chance to discuss her response in detail.

The questions asked and the way they were asked were standardized for each respondent. Because many of the questions involved each respondent's perceptions and relied on self-reporting the questions were designed to be simple and clear so as to minimize misinterpretation of questions and vagueness in answers. Part A was a structured guided interview administered to the sample participants. Part B of the survey instrument involved data collecting from medical records. Part A of the survey instrument involved the collection of both quantitative and qualitative data. The quantitative data included a series of closed ended questions to gather factual data concerning (demographic information, the participants' history of drug abuse, trauma, awareness of risks of neonatal abstinence syndrome and involvement in treatment programs). The qualitative data was obtained by a series of open ended questions concerning the respondent's perceptions, feelings, and attitudes.

Part A of the questionnaire is divided into five areas.

Section I of the questionnaire includes demographic information about the respondents in the following areas: age, education, income, residence, location, number of children born to respondent, number of children previously diagnosed as neonatal abstinence syndrome and fetal alcohol syndrome.
Section II concerns information about the respondent's current circumstances with regard to her marital status and her relationship with the father of the baby. This section also explores the nature of the respondents's present relationship with her present partner in terms of spousal abuse.

Section III deals with data on each respondent's history of trauma (physical, sexual and/or emotional) as well as death of a parent, adoption, foster home placement). The respondent is then encouraged to give her own opinions, perceptions and awareness of the abuse as well as an account of how she feels now and what effect she thinks the trauma has had on her life. The purpose of this section is to explore for relationships between past unresolved traumas and the associated feelings of depression, low self esteem, and anxiety with substance abuse.

Section IV In this section the respondent is asked to answer specific questions regarding the nature and history of her substance abuse again to see if there is evidence of a correlation between the onset of substance abuse and trauma. The section also obtains data on the respondent's awareness of the relationship between prenatal substance abuse and neonatal abstinence syndrome and fetal alcohol syndrome and her willingness to stop taking drug and alcohol during pregnancy and to participate in a treatment program.

Section V contains both closed and opened ended questions designed to gather data on the treatment, educational resources and personal resources both available to and utilized by the respondent as well as the respondent's own opinions and personal assessment of the kinds of resources she feels would best meet her needs and those of her child.
Part B of the survey instrument involves the collection of quantitative data concerning the symptoms of neonatal abstinence syndrome infants of the addicted mothers. The data is drawn from the infant’s medical records as documented by the physician’s assessments and nursing records (Appendix IV). The purpose of this part of the survey is (1) to provide supportive data that the women in the samples were in fact substance addicted as indicated by the shared addiction in their infant. The self-reporting in part A regarding substance abuse could be collaborated by the objective data in Part B. (2) to test other correlations between quantity and duration of prenatal substance abuse and neonatal abstinence syndrome in the infant.

D. Reliability of Measure and Validity

In this study it is not the intent to measure phenomena, consequently the reliability of a measure is not at issue. Reliability in the sense of consistency of information and interview agreement could have been tested in principle if another set of interviews with the same sample had been conducted by an interjudge. Unfortunately there was no opportunity for this.

In an attempt to assess validity in the crucial area of the respondent’s use of alcohol and drugs during pregnancy, two sources of data were used: (1) the respondent’s self-reporting (2) the symptoms of neonatal alcohol syndrome manifested in the infants as reported in the medical records which have standardized tests.

The two sources help to check the accuracy and trustworthiness of data. If a mother reports little or no prenatal substance abuse and the baby has significant symptoms of neonatal abstinence syndrome the discrepancy indicates inaccurate self-reporting. However, the accuracy of prenatal substance abuse is established by the recorded data source in the medical records.
E. Data Analysis

The data is categorized, ordered and summarized by means of charts and graphs for quantitative analysis. The process of qualitative analysis involved the approach outlined by Glaser and Strauss, (1967). The transcripts from the interview with each respondent are used to provide raw data to generate conceptual categories and properties. From this the emerging themes were then linked to theories found in the literature.

For example: One respondent related a detailed account of the emotional trauma she suffered at age 12 when her mother died. Soon after this her father abandoned the family when he became severely alcoholic. The respondent’s response to this trauma was to run away from home and become involved with drug and alcohol at age 13. The emerging theme is the relationship between past unresolved trauma and chemical addiction.
Indicators | Properties | Categories | Emerging Themes
--- | --- | --- | ---
- feelings of grief | emotions | reaction to trauma | relationship between unresolved trauma and chemical addiction.
sadness loss of mother

- anger re: father's alcoholism
- feelings of abandonment re: loss of parents
- fear of future
- helplessness

- running away from home actions
- involvement with drugs and alcohol

Table 1: Example of qualitative analysis of the data using conceptual categories and properties to show emerging themes.

The present chapter outlines the manner in which the data was collected and the strategy for analysis. The following chapter presents the results of the analysis.
CHAPTER FIVE

RESEARCH FINDINGS

A. Pretest and Subsequent Questionnaire Revisions

After receiving letters of approval from the St. Paul's Ethics Committee for Human Experimentation (Appendix V) and the University of British Columbia Ethical Review Committee (Appendix VI) a pretest was conducted to test the interview instrument with two women who delivered babies diagnosed at birth as neonatal abstinence syndrome. This section provides an outline of the pretest and description of revisions to the interview guide. The revisions are included as the pretest revealed gaps in important information necessary for the study. The original introduction of the project to the respondent was also modified as it was inadequate in terms of explaining the purpose of the project. The results of the pretest are not documented. Only two people participated in the pretest as the population of chemically addicted mothers is not large and given the time the pretest was conducted these were the only two people available to participate. Because of modifications to the interview instrument after the pretest, the pretest sample could not be included in the larger study.

The two women who participated in the pretest were initially approached on a one to one basis by the interviewer. The project was explained and their agreement to participate was obtained. They both signed interview consent forms. (See Appendix VIII). The first difficulties occurred in the interview with the women concerning the
explanation and reasons for the research. Both the women expressed concern about confidentiality. Despite the fact that the consent form clearly states the information obtained from the interviews will be kept confidential they required additional assurance that confidentiality would be respected. They were made aware that all the data collected from the interviews would be destroyed when the project was completed and no identifying information about the participants would be included in the research findings and final report. After confidentiality was addressed and the women assured the information would in no way be used against them the focus changed. The voluntary nature of the study was emphasized as was a value of the information based on their experiences in terms of contributing to the development of resources and treatment services. It was stressed that for resource development to be successful, there is significant dependency on the acquisition of information that accurately identifies service needs. In this respect these women are the most valuable source of information. The women responded positively to participation when they fully understood the purpose of the study and were supported in the value of their contributions. This approach was used with all the research participates.

The initial interview guide Appendix I proved to be too limited in that the closed ended questions which were asked provided little opportunity for discussion and expression of the participates thoughts and feelings. The closed ended questions tended to generate a tenseness in the interview between the interviewee and interviewer and seemed to hinder the process of obtaining information in a free-flowing thorough manner. This precipitated a number of revisions to the interview guide following the pretest. (See Appendix II)

In the Section I designated Demographic Information only one additional question was added concerning secondary sources of income. One of the women in the pretest identified social assistance as the primary source of income but also indicated her common-law spouse contributed to her financial support. Consequently question 5
was added to the revised guide.

In Section II current circumstance both questions warranted further discussion to obtain an accurate and full account of the women's circumstance in each of these areas. The discussion was facilitated adding open ended questions which encouraged the participates to discuss the issues in more detail. This also allowed the interviewer to provide support for the interviewee which tended to elicit more detailed responses and provided more comfort for the interviewee.

Section III dealing with past trauma also required the addition of open ended questions to allow for discussion and opportunity for the respondents to express the facts of their circumstance more completely. This was achieved by asking a series of probing questions immediately following the initial closed ended question. For example, in Part III Question 1 of the first questionnaire the respondent was asked - Were either you or your parent substance addicted? In the revised questionnaire the following questions were added.

- Can you tell me more about this?
- What was it like for you?
- How do you feel about this?

This kind of inquiry ultimately provided more informative data to answer the research questions.

Section IV remained the same in both guides.

In Section V the strategy of using open ended probing questions was again added to the revised questions. In addition another question was included in the revised guide (Part V, Question 5) concerning individuals in the respondent's life who may discourage them from participating in a treatment program. This question was added because it became apparent in the pretest that both women were involved in common law relationships with chemically addicted men. Both felt their spouses would not support their involvement in a treatment program. Consequently, the question is important in terms of determining what barriers prevent these women from entering
treatment.

B. The Population and Description of Survey Sample

Ideally the goal for the study was to obtain a random representative sample of the mothers at risk of delivering a chemically addicted child. However, it is extremely difficult to make contact with this group in their own environment (usually the inner city core). Generally these women avoid contact with medical sources, Public Health and Child Welfare officials primarily because they fear their child will be apprehended if it is known they are pregnant and abusing drugs. The majority of these women receive no prenatal care. Consequently, most avenues of contact with them are blocked until they deliver their child. Once they are in the hospital contact is initiated. If the mothers are treated with respect, in an accepting supportive non-judgemental manner, they can usually be engaged in counselling and planning for their infant as well as research projects.

In this study, the sample, was drawn from the entire population of chemically addicted mothers admitted for delivery to one hospital which serves the inner city core. Therefore, the sample is not representative of all women at risk of delivering a chemically addicted child as the geographical position of the hospital predisposes it to serving an unrepresentative population. A more representative sample could have been obtained by drawing the sample from a number of hospitals which provide obstetrical services to mothers of chemically addicted pregnant women. The hospitals would serve both in rural and urban areas.

Table I displays the distribution of responses for those items in the questionnaire that deals with the demographic aspects of the sample. The women in the sample vary in age from 19 to 35 years, with a mean age of 26 years. The distribution is approximately uniform one with nine of the thirteen women being 24 years or older. Educational Level varies significantly from grade 7 to grade 12 plus one year post
secondary education. The mean was 9.7 years of education. Only 23 percent of the women completed high school. This indicates most of the women have very limited formal education. In recent years the public schools education system in conjunction with the provincial government of British Columbia has increased drug and alcohol prevention through awareness programs aimed at secondary school children. Drug and alcohol prevention is taught in the school system. The fact that most of these women have not complete high school indicates they have not been exposed to the benefit of alcohol and drug teaching through the school system which may have benefitted them and their children through the awareness of risks associated with prenatal substance abuse. The low educational level also explains the high rate of unemployment among these women and low socio-economic status both of which provide less opportunity for these women to feel in charge of their lives.

**Income Source:** Eighty five percent of the women receive social assistance through the Ministry of Social Services and Housing, financial aid program and identified this as their primary source of income. Twenty-four percent of the women reported secondary sources of income. These sources included spousal support, prostitution, illegal activities (selling drugs) and parental support. None of the women are gainfully and legally employed. Two of the women admit to participation in prostitution after their social assistance ran out each the month. None of the women have the benefit of increasing their self-esteem through financial independence and employment. It follows that their dependence on other sources of income for basic survival diminishes their sense of self worth and empowerment. According to the literature these circumstances contribute to depression which in turn is a significant factor associated with female substance abuse.

**Race:** Sixty one percent of the respondents are of Native Indian origin, thirty percent are Caucasian and eight percent Negro. It is important to point out that these statistics
TABLE II: Demographic Characteristics of Women Who Delivered Chemically Addicted Infants

Same size = 13

**Bar Graph of Variable: AGE**

Value = age in years
Value Count Percent

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Mean 26 years

**Bar Graph of Variable: EDUCATIONAL LEVEL**

Value = years of formal education completed by each respondent

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Mean 9.7 years of education
### Table II - continued

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### Bar Graph of Variable: MARITAL STATUS

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**TABLE II - continued**

**Bar Graph of Variable: NEONATAL ABSTINENCE SYNDROME**

Value = the number of chemically addicted children previously born to each respondent

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cannot be interpreted as an indicator of the predisposition to alcohol and drug among any given racial group. The figures render information about the circumstances of the women in the sample. The high percentage of Native Indian women is consistent with the reports in the literature in terms of prevalence of prenatal substance abuse among Native women. The study indicates that prenatal substance abuse among Native Indians is high not only in rural communities but inner city areas as well. The native women in the study predominantly grew up on rural Native reservations and tend to move back and forth between the city and their community of origin. Most of these women stated they began drinking alcohol at a relatively young age. One young woman who started drinking heavily as a teenager said she had "nothing else to do". She was not attending school and was unemployed. In the interviews the Native women often report being the product of disorganized dysfunctional families where alcohol abuse and related problems of poverty, violence, sexual abuse, low levels of education and poor self-esteem are not uncommon. As a coping mechanism many of these young women start abusing alcohol to an extent which supports the general deterioration of their lives. Given high levels of dissatisfaction and multi-life problems some of these women report feeling driven to find something better; in order to do this they leave their small communities and move to large cities such as Vancouver. For the most part they have limited formal education and are unskilled in terms of employment training and consequently poorly equipped to survive urban life. The racial discrimination they encounter and the disconnection from their roots and support system all contribute to the difficulties these women face in trying to cope with the inner city environment. They are vulnerable to drugs and alcohol as an escape from their circumstances.

Some of these women report trying improve their circumstances by moving out of the down core, finding employment and stopping the use of drugs. However, they find this extremely difficult and are confronted with many factors which prevents them from changing their situation. Housing is very expensive outside of the downtown core. Some feel discriminated against because of their racial origin when they try to find
housing, employment and new social contacts. Generally they see little hope of changing their current circumstances. This emerging theme of feelings of hopelessness and disempowerment among the women in the sample abusers is well supported in the findings documented in the literature. It points to a need to assist these women with increasing a sense of control in their lives which is generated by the development to life skills (work training and education) and increasing self-esteem.

Relationships: This area explores each woman’s marital status and quality of relationship with her partner. In terms of abuse the data provides some information as to the woman’s significant relationships and whether or not these relationships support her or contribute further to stressful life circumstances: forty-six percent of the women are single, thirty percent are divorced, fifteen percent are co-habitating and one woman is married and eight percent married. Only twenty-three of the women are involved in a married or cohabitating relationship. Therefore, the other seventy-seven percent are single parents. Only thirty-eight percent of the women have frequent contact with the father of the baby, forty-six percent state they have no contact with the father of the baby and expect to be solely responsible for the baby’s care. Although this is a heavy responsibility, in some sense these women are in considerably better circumstances than the group who are either married or cohabitating; in that one-hundred percent of the women in this group report spousal abuse (either physical and/or emotional). Generally the women in the study are either without a partner to share the responsibilities and assist with child rearing or they are in abusive relationships. Both these circumstances contribute to stressful life style which fosters chemical addiction.

Other Neonatal Abstinence or Fetal Alcohol Syndrome Children: For the majority of women eighty three percent this was their first chemically addicted child. One of the women has two children previously diagnosed as Neonatal Abstinence Syndrome and another woman has one child diagnosed as Fetal Alcohol Syndrome. All three children
have been apprehended by Child Welfare authorities and the mothers are unable to regain custody. Both women are very distressed and angry toward the Child Welfare system because the children were taken from their care and placed in foster homes. Both women feel punished and victimized by Child Welfare authorities. They also feel they were not offered any support or assistance during the time of the apprehension and placement of their children in foster and adoptive homes. They also have considerable grief over the loss of their children. Both feel they would have benefitted from emotional support and practical assistance to help them obtain drug and alcohol treatment. These women are very determined not to lose their children once again to the welfare system and are both highly motivated to participate in alcohol treatment recovery programs.

Another interesting point is that the apprehension of the previous children has done nothing to prevent the birth of another chemically addicted infant for each of these women. After the apprehension, neither woman received treatment and they both went on to have another addicted child. It is evident that intervention is essential to halt the processes of women repeatedly having chemically addicted children. This is supported by the literature which reports that women who lose children tend to have replacement children to make up for their loss.

All twelve women in the study whose children lived, (one woman had twins that died at birth) planned to retain custody. In four cases, Child Welfare officials were threatening to take custody because the mothers were unable to provide suitable living environment for their children. In the other eight cases child custody has not been decided and was the mother's ability to manage her drug problem and provide evidence of her ability to care for the child in appropriate living circumstances. This is significant for planning intervention with these women. It is not only the issue with addiction that must be addressed but also child care. As aforementioned, many of these women come from dysfunctional families where nurturing and child care were not properly provided and modelled. Many of these women are highly disadvantaged in this area. It is
essential support and treatment resources for these women include practical education and training in child care and parenting.

Financial resources is another important issue. While many of the mothers agree, a skid row hotel is not a good place to raise a child, financially this is all many of them believe they can afford - given the high cost of house in Vancouver. Practical assistance and life skill training for finding suitable living accommodations is also essential. Programs that provide subsidized housing for single mothers would also help to relocate these women into better living environments. (Forty six percent of the respondents live in hotel rooms in the inner city core).

The area of the study dealing with demographics reveals a considerable amount of information which lends a better understanding of the needs of the women who are most vulnerable to prenatal substance addiction. It also provides some insight into why their circumstance are as they are and some of the difficulties they face in trying to make changes. This information is useful in program planning. For example cultural and racial issues are important as are the aspects of racial prejudices, the realities of poverty, poor education and abusive spousal relationships because all of these facets of women’s circumstances must be addressed as they play an integral part in the problem of prenatal substance abuse.

Patterns of Drug Abuse

The data in Table II indicates a vast range in the number of years each woman has been using drugs and alcohol abusively. Respondents indicated they have been using drugs from 3 to 22 years with a mean of 10 years. However thirty eight percent have been using drugs only for the past six years. These findings also show that in all cases there was at least three years of chemical abuse prior to the birth of a chemically addicted child. This makes a good case for preventative services. If a woman can receive drug and alcohol treatment early in her history of abuse, her chances of not
delivering an addicted infant are likely to be increased.

In surveying the data concerned with the drugs most commonly used, alcohol and cocaine appear to be the drugs of choice. Alcohol was abused by seventy-five percent of the women and cocaine by fifty-eight percent. The next most commonly used set of drugs was a combination of ritalin and talwin. Those drugs are legally sold only by prescription. They find their way to the street and are taken in combination intravenously. Users often refer to this preparation as the "the poor man's heroin" as it has a similar affect to heroin but is far less expensive. Twenty-five percent of the respondents use these two drugs. Other drugs used include: heroin used by seventeen percent of respondents and marijuana used by eight percent.

The findings indicate that most women abuse alcohol in combination with one or more other drugs. The emerging theme of multi-drugging among women addicts is supported by the literature (Celenano and McQueen). Multi drugging is an issue to consider in planning treatment intervention and prevention programs. Comprehensively drug abuse can involve both illegal and legal drugs and a woman can be abusing two or more substances concurrently; the abuse arising from the same causal process. When one drug is dealt within treatment, such as alcohol, a second or third drug (often prescription) may later replace the first drug (alcohol) for abusive purposes. Consequently drug addiction continues. However the findings suggests that chemical addiction should be approached generally. Drug addiction to legal drugs such as tranquillizers and analgesics should be treated no differently or considered no less harmful than other legal drugs such as alcohol and illegal drugs such as heroin as all of them contribute to the harmful affects to the fetus.

The data also indicates a need to control the illicit procuring and use of prescription medication such as ritalin and talwin. This requires more responsible policies and regulatory controls by government and medical practitioners for the dispensing of such medication.

Women also reported that they usually prefer one drug such as cocaine but
### TABLE III

**Bar Graph of Variable:** NUMBER OF YEARS THE RESPONDENT HAS USED DRUG/ALCOHOL ABUSIVELY

Value = the exact number of years of drug and alcohol use

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take other drugs when cocaine is not available or affordable. This inconsistent and intermittent use of drugs especially of the narcotic groups proved to be more less harmful to the baby than cases wherein the fetus is continually exposed to highly addictive drugs on an ongoing basis. This occurs in the cases of medically prescribed methadone, a drug used to treat heroin addiction. The mother is prescribed methadone on a continuous and regular basis. The effects on the baby are devastating in terms of addiction and withdrawal because the fetus is exposed continuously throughout the pregnancy. In these kinds of cases the withdrawal is more severe. The data from the study indicated those women who only took highly addictive drugs such as heroin and cocaine intermittently had infants with fewer and less severe withdrawal symptoms.

Other drugs commonly used throughout the pregnancy were caffeine and nicotine. Eighty-three percent of the respondents smoked cigarettes and forty-two percent drank coffee.

The data collected on the frequency and duration of drug use during pregnancy indicated most women who took alcohol drank daily and throughout the entire pregnancy. In the case of cocaine twenty-seven percent of the users took the drug daily up until the end of the second trimester of pregnancy and eighteen percent took the drug weekly. Another eighteen percent reported taking the drug monthly, thirty-three percent of the ritalin and talwin users took the drug daily throughout the entire pregnancy. Another thirty-three percent took the drug daily but only during the first trimester.

The majority of the women reported stopping the use of drugs in the first trimester stated they did so because of the pregnancy and fear of the consequences to the baby. However, only thirty-one percent of the respondents claim to have any awareness that prenatal chemical abuse could harm the baby. The implication, here, for prevention is the need for education concerning the causes and consequences of prenatal substance abuse. The data indicates seventy-three percent of the women claim they would have stopped or tried to stop using drugs during pregnancy had they been aware
of the risks to their baby. Seventy-seven percent stated they would have participated in a drug treatment program during their pregnancy. This suggests these women are motivated to participate in treatment programs. This is supported by the theme emerging from the data that the majority of these women expressed genuine remorse when they became aware their baby's were chemically addicted as a result of prenatal substance abuse. The remorse shown by these women dispells the stereotype of the pregnant addict pursing the gratification of her addiction with no concern for her child. These concern can in fact be utilized as a powerful incentive to engage women, prenatally, in treatment programs.

C. The Effects of Prenatal Substance Abuse

One of the purposes of this study is to verify the relationship between Prenatal Substance Abuse and Neonatal Substance Abstinence Syndrome for the sample used in the study. Figure IV displays the data related to the Neonatal Abstinence Syndrome symptoms manifested by twelve Neonatal Abstinence Syndrome infants exposed prenatally to addictive chemicals. The data is missing for a set of twins that were diagnosed at birth as Neonatal Abstinence Syndrome but died shortly afterwards. The symptoms presented by the infants in this study closely match those described in the pathogenic studies found in the literature. The symptoms in the infant also verify prenatal chemical dependency in the mother. For in order for the symptoms to exist in the infant, a shared dependency with the mother must also exist.

The data indicates that thirty-three percent of the infants had symptoms of low birth weight, sleep disturbances and diarrhea. A shrill persistent cry was found in 6 out of 12 or fifty percent of the infants and fifty-eight percent displayed tremors. Only one child suffered convulsions. Forty-two percent of the infants had feed problems ranging from a weak sucking reflex to un-coordinated chomping, and vomiting. Difficulty attending and inability to cope with stimuli (indicative of central nervous
Percentage of Infants Displaying Symptoms

**FIGURE IV: Bar Graph of Neonatal Abstinence Syndrome Symptoms**
system disorders) was noted in twenty-five percent of the infants. Prematurity occurred in twenty-five percent of the births. Only thirty-three percent of the infants had to be treated with narcotics (usually opium or morphine preparations) to ease the withdrawal and diminish the more life threatening symptoms of vomiting and diarrhea. The rest of the infants were treated with non chemically for withdrawal. All of the infants were treated with high calorie formulas to increase weight gain and offset the effects of vomiting, diarrhea and increased activity. They were also protected from increased stimuli such as light, noise, environmental activity and excessive handling by care givers and parents to allow their nervous system a chance to recover from the over-stimulation precipitated by utero drug exposure. The symptoms and general care of the infants require a fairly high level of skill. Nurses and medical staff are well able, through specialized training to manage the care needs of these infants. However the mothers who have no training often find the child's care very difficult which in turn can increase feelings of failure and inadequacy in them mother as documented in the literature. This is an important issue in program planning; especially if the child is in the mother's care when she enters treatment. One area of the program should address the mother's need for education and support in managing the demanding and of difficult care needs of these children.

D. Past Trauma and Chemical Addiction

Another purpose of this study is to explore the relationship between a woman's history of past trauma chemical addiction. The literature, in the area of addiction recovery, suggests that past unresolved trauma does not in itself cause someone to be chemically dependent but it predisposes them to chemical dependency by creating feelings of fear, anxiety, depression, low self-esteem which the individual may have a need to disconnect from through the medicating effects of drugs and alcohol which provide temporary relief from the emotional pain. (Kellogg 1990, and Woititz
Kellogg maintains that a symbiotic relationship exists between past trauma and chemical addiction. The trauma and associated feelings fuel the addiction and the addiction is primary that is a person cannot deal with other issues (i.e. past trauma) until they deal with chemical dependency. The conclusion that can be derived from this is the need to address both past trauma and chemical addiction conjunctively.

This is supported by the data wherein the theme consistently emerged indicating the relationship between past unresolved trauma and chemical addiction. Table IV displays the distribution of responses for those items in the Interview Guide that covered the various areas of past trauma.

**Family of Origin Addiction:** Twenty-three percent of the respondents reported their mothers were addicted to drug or alcohol and fifteen percent stated their fathers were addicted. Twenty-three percent of the respondents came from families where both parents were addicted. Collectively sixty-two percent of the respondents came from addicted homes. This supports the findings in the literature which states addiction as integenerational process (Kellogg, Bradshaw 1988): addiction is passed from one generation to the next until the chain is broken through treatment and recovery.

The literature also suggests that children from addicted families suffer emotional trauma, in that, these families are characterized by highly dysfunctional relationships among family members, the modelling of poor coping skills and emotional abandonment in that the child’s emotional needs are not taken care of by the addicted parent(s). A result the child develops feeling of shame and low-self worth. The same feelings which characterize the addict.

**Absent Parent(s):** Forty-six percent of the respondents report growing up in families in which the father was absent. Fifteen percent stat their mothers died when the respondents were children. The most emotionally traumatized group consists of the respondents who lost their mother. They feel they had no role model for parenting and
TABLE IV: Past Trauma of Chemically Addicted Women

Sample Size 13

Bar Graph of Variable: PARENTAL ALCOHOL/DRUG ADDICTION

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<td>3</td>
<td>23.08 ***</td>
</tr>
<tr>
<td>2.000</td>
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<td>15.38 **</td>
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<tr>
<td>3.000</td>
<td>5</td>
<td>38.46 *****</td>
</tr>
<tr>
<td>4.000</td>
<td>3</td>
<td>23.08 ***</td>
</tr>
</tbody>
</table>

Bar Graph of Variable = ABSENT PARENT

(parent(s) of the respondent who left the family when the respondent was a child)

<table>
<thead>
<tr>
<th>Value</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.000</td>
<td>2</td>
<td>15.38 **</td>
</tr>
<tr>
<td>2.000</td>
<td>6</td>
<td>46.15 *****x</td>
</tr>
<tr>
<td>3.000</td>
<td>5</td>
<td>38.46 *****</td>
</tr>
</tbody>
</table>
### TABLE IV - continued

**Bar Graph of Variable: FAMILY SEPARATION**
(Respondent’s permanent separation from family of origin)

<table>
<thead>
<tr>
<th>Values</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>7.69</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>23.08</td>
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<td>7.69</td>
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<td>3</td>
<td>23.08</td>
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<tr>
<td>5</td>
<td>1</td>
<td>7.69</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>30.77</td>
</tr>
</tbody>
</table>

1 = respondent apprehended by Child Welfare authorities and removed from family of origin
2 = respondent ran away from her home
3 = respondent abandoned by her parents
4 = respondent relinquished for adoption
5 = respondent given away as a child to other adults
6 = no separation from family of origin
7 = other
### TABLE IV - continued

**Bar Graph of Variable:** PHYSICAL, SEXUAL AND/OR EMOTIONAL ABUSE HISTORY OF RESPONDENT

<table>
<thead>
<tr>
<th>Value</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.000</td>
<td>4</td>
<td>30.77</td>
</tr>
<tr>
<td>4.000</td>
<td>1</td>
<td>7.69</td>
</tr>
<tr>
<td>5.000</td>
<td>4</td>
<td>30.77</td>
</tr>
<tr>
<td>6.000</td>
<td>2</td>
<td>15.38</td>
</tr>
<tr>
<td>7.000</td>
<td>2</td>
<td>15.38</td>
</tr>
</tbody>
</table>

Value 1 = history of physical abuse  
2 = history of sexual abuse  
3 = history of emotional abuse  
4 = history of physical and sexual abuse  
5 = history of physical and emotional abuse  
6 = history of sexual and emotional abuse  
7 = history of physical, sexual and emotional abuse  
8 = no abuse  
9 = other
express feelings of abandonment and a pervasive sense of loneliness. One young woman stated that she was 13 years old when her mother died. Since that time she was totally on her own. After her mother’s death her father developed a problem with alcoholism and, while physically present in the family, emotionally he had disconnected from the family. Another woman report that at age 15 years she was on her own after her mother died. Her father had long since left the family. These women reported problems with relationships in general and felt they used alcohol and drugs as a means of coping. This supports the findings in the literature; that children who have been traumatized with a sense of abandonment, often have difficulty in adulthood forming and maintaining relationships out of fear of once again being abandoned. Chemical dependency develops as a means of suppressing the fear and anxiety associated with the isolation. (Bradshaw 1988, Cermak 1987, Woititz 1986).

**Family Separation:** Fifteen percent of the respondents report being separated permanently from their family of origin either through abandonment by their parents (7.69%) or apprehension by Child Welfare authorities (7.69%) Twenty-three percent of the respondents state they ran away from home. They reported leaving their families at a fairly early age (from thirteen to sixteen years of age) due to conflict, abuse and neglect. It was not uncommon for these young women to become involved with drugs and alcohol at about the same time they ran away. One young woman indicates she began living in a common law relationship with a man involved in drug trafficking. The other two became involved in prostitution to support themselves and report taking drugs to escape the realities of their circumstances. Only four of the respondents (thirty-one percent) state that they suffered no separation from their family of origin.

**Adoption:** Twenty-three percent of the respondents are adopted. One of the adoptions involves a Native woman adopted by a Native family. This respondent claim to maintain contact with both her natural mother and adoptive parents. She states she
feels no sense of conflict or emotional distress because of her adoption history. The other two respondents both Native women adopted into Caucasian families are the victims of inter-racial adoptions which failed. Both women reported problems with identity crisis; feelings of "not fitting in with their adoptive family". Both women left their adoptive family homes at a relative early age (16 and 17 years respectively). One woman states she has a very strong sense of racial discrimination and identity conflict because of her Indian appearance, but states she felt "white" inside. These reports are supported by the literature which documents a high rate of adoption failure, identity problems, psychiatric disorders and maladaptive behaviors among child of inter-racial adoptions all of which would render inter-racial adoptions as potentially traumatic for the adoptees.

**Physical, Sexual and Emotional Abuse:** One-hundred percent of the respondents report a history of abuse. Sexual and/or physical abuse was the most prevalent and appeared in sixty-nine percent of the cases. The data indicates chemical addiction and a history of abuse co-exist in 100% of the cases in the study, suggesting a relationship between the two.

**E. Utilization of Treatment and Rehabilitative Resources by Chemically Addicted Women** (see Figure V)

This part of study explored whether or not chemically addicted pregnant women are involved with treatment resources. The data indicates that eight percent of the respondents at some point in time have been involved with drug and alcohol outpatient programs, fifteen percent have attended self-help programs (A.A.) and fifteen percent have attended residential inpatient programs, sixty-one percent of the respondents have no history of drug and alcohol treatment. In terms of the resources the respondents assess to be helpful - eight percent report drug and alcohol outpatient
N = 12

Percentage of Respondents

PROGRAMS

Drug and Alcohol Counselling Program

Outpatient Treatment Programs

Self-help Programs

Inpatient Treatment Programs

Respondents who Participated in No Treatment Programs

FIGURE V: Respondents Participation in Alcohol and Drug Treatment Programs
counselling services beneficial. Fifteen percent felt A.A. was helpful and the fifteen percent who attended residential treatment centres believed they received some assistance.

The data suggests that, of those women who attended the existing alcohol and drug treatment services, all of them feel the services were useful. It is significant to note that a relatively small percentage - thirty-eight percent were engaged in these services and all of the women delivered chemically addicted infants. However this is not to suggest the services are not helpful. They are however extremely limited in their effectiveness.

The data also indicated that none of the women attended resources specifically for the reason of addressing their issues related to physical and/or sexual abuse. One woman states the alcohol residential treatment program she attended helped her with the emotional abuse she suffered in her family of origin in conjunction with her chemical dependency. The data shows that the alcohol and drug treatment services are used only to a limited extent by these women and with the exception of one case none of the resources addressed the diverse needs of these women related to chemical abuse and past trauma. This may be one reason why the existing resources are not utilized to the full extent by women, they do not comprehensively meet the needs.

F. Support and Barriers to Treatment

This part of the questionnaire explores the women's supports and barriers to entering a treatment program as well as their multifaceted needs in terms of services and treatment.

Personal Resources: Fifteen percent of the women state their spouse or common-law partner would support them in entering a treatment program. Thirty-one percent of the women believe their mothers would support them and fifteen percent have a sibling who
takes on this role. Only eight percent have a friend who is supportive while thirty-eight percent of the women state their friends supported and encourage their use of drugs and alcohol. Another twenty-three percent state their spouses would also discourage their involvement in a treatment program. The data suggests many of the women have support from friends and family members. A much smaller percentage were supported by their spouses. Unfortunately, a higher percentage of the women were actively encouraged, in the maintenance of their addiction, by friends, peers and spouses. This is an important component to remember in program planning and treatment. Those individuals who support the participate in treatment can be utilized as a positive resource. However, those women who are not supported must be helped to deal with peer and family pressure they will encounter when they enter treatment. The findings of this study indicate that most of the women who have personal support are the ones who did attend the residential and self-programs for addiction treatment. This confirms the value of such support.

Other deterrents for the respondents' participation: thirty-three percent feared their participation in a treatment program might be used against them, as admission to a drug problem, by Child Welfare authorities and consequently threaten their custody of their child. Another sixteen percent indicate concern that entering a treatment program would necessitate a separation from the baby. These women express a need to be near their infants while the children are hospitalized for withdrawal. Eight percent of the women were concerned about the cost of treatment. None of the respondents have child care responsibilities which would interfere with their ability to participate in a treatment program. Some of the women feel they have more urgent needs to deal with, for example, finding better housing, dealing with their problems concerning child welfare authorities, financial problems and relationship problems. Because of these issues they feel they did not have the time and energy to participate in treatment programs. A final deterrent is that many of the women are not aware of available treatment programs. Generally these deterrents are consistent with those
explored in the literature.

The final research question this study address is to explore what resources and services the respondent's think would be most helpful to them in dealing with their issues related to substance addiction, past unresolved trauma, parenting and caring for a chemically addicted child. Accordingly each respondent was asked identify which of the services from a list of programs they thought would be useful to them. Table 5 and Figure 6 indicate the respondent's responses.

The greatest amount of support is for self help groups; this reflects a desire for respondents be in charge of their own recovery which is a positive indication as many of these women are disempowered psychology and circumstantially.

It is interesting to note that a fairly high percentage of the women (fifty-four percent) think self-help groups and forty-six percent believe counselling would be useful resources. Previous data indicates only fifteen percent actually attended self help groups and twenty-three percent attended treatment programs that offered counselling. This suggests that women recognize the value of counselling and self-help groups but are not participating in them. Here again it is important to find out why. At least part of the answer is indicated in the barriers, women identity to their participation in programs (Section F).

Forty-six percent of the women state assistance with housing search is important. This reflects some of the basic and practical needs with which these women require assistance. Another forty-six percent of the women indicated assistance with job training would be beneficial. This implies a desire for these women to improve their circumstances and become financially independent. Again employment would render them more control over their lives and consequently more personal power.

Two percent of the respondents, although acknowledging prenatal substance abuse and a history of past trauma as well as the addiction their child suffered continued to maintain that they could deal with their problems of drug and alcohol on their own. They state that treatment was not necessary for them. In fact, the women in this group
### TABLE V: Number and Percentages of Respondents who Rated Specified Programs as Useful

<table>
<thead>
<tr>
<th>Program</th>
<th>Number (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Counselling</td>
<td>6 (46%)</td>
</tr>
<tr>
<td>Group Counselling</td>
<td>3 (23%)</td>
</tr>
<tr>
<td>Family Counselling</td>
<td>2 (15%)</td>
</tr>
<tr>
<td>Self Help Groups (A.A. Co-dependency Groups</td>
<td>7 (54%)</td>
</tr>
<tr>
<td>Narcotics Anonymous)</td>
<td></td>
</tr>
<tr>
<td>Drug Education</td>
<td>3 (23%)</td>
</tr>
<tr>
<td>Life Skills</td>
<td>2 (15%)</td>
</tr>
<tr>
<td>Job Training</td>
<td>6 (46%)</td>
</tr>
<tr>
<td>Assistance with Housing Search</td>
<td>6 (46%)</td>
</tr>
<tr>
<td>Parent Education and Training Skills</td>
<td>3 (23%)</td>
</tr>
<tr>
<td>Neonatal Abstinence Syndrome Education</td>
<td>4 (31%)</td>
</tr>
<tr>
<td>Categories are not mutually exclusive</td>
<td>n = 13</td>
</tr>
</tbody>
</table>

Figure graphically depicts the support for resource, evidenced by respondents.
claim that since the birth of their child they no longer have problems with drugs and alcohol. According to the literature this level of denial is not uncommon with chemically addicted individuals.

The following Chapter summarizes findings, offers some proposals for prevention and treatment and makes suggestions for further research.
CHAPTER SIX

PROPOSED PROGRAM OF PREVENTION AND TREATMENT

A. Summary of Findings

The primary purpose of this study is to establish that pregnant chemically addicted women have complex and multi-faceted needs for special resources. The study also indicates women are not utilizing the existing resources and programs for chemical addiction.

The data suggests that the needs of pregnant addicted women are complex in that they require services to meet their needs in many areas ranging from

1) resolution of past trauma
2) information and education regarding the effects of prenatal abuse
3) assistance and education on parenting their special needs children
4) alcohol and drug treatment
5) assistance with housing
6) assistance with retraining
7) medical prenatal care

In terms of existing resources few women in the study received prenatal care, none of them received treatment for past unresolved trauma, none of them have received parenting education and only a small percentage attended alcohol and drug treatment. These findings are consistent with those outlined in the literature survey.
and indicate that the existing resources are not engaging pregnant addicted women by (1) providing comprehensive programs to meet their needs and (2) removing the barriers of fear, social stigma and lack of support which prevent their participation in treatment. In the area of determining the service needs of chemically addicted women the link was explored between the factor of unresolved trauma and the prevalence of chemical addiction. In one-hundred percent of the cases of chemically addicted women involved in the study, past unresolved trauma was a common factor. Trauma ranged from physical, sexual, emotional abuse to adoption, dysfunctional family environment and parental addiction.

The study also explores other factors such as demographic characteristics to map out other significant associations between these factors and the prevalence of prenatal substance abuse. The results indicate:

1) There is an association between income and prenatal substance abuse. (85% of the women were in the very low economic strata supporting themselves primarily on social assistance).

2) An association exists between prenatal chemical abuse and education (61% of the respondents had less than grade eleven education).

3) A strong relationship is indicated between prenatal substance abuse and lack of prenatal care. (62% of the women who delivered chemically addicted infants received no medical prenatal care).

4) Finally the data indicates a significant relationship between prenatal chemical addiction and the lack of a personal support system (77% of the women are single or divorced, 38% have friends who encouraged their use of drugs and alcohol and 69% of the women are separated from their family of origin and consequently lack their support).

No significant relationship is noted between the age of the respondent and prenatal substance abuse. Surprisingly there seems to be no relationship found between the number of years of alcohol and drug abuse and prenatal substance abuse.
In fact, women who have been abusing alcohol and drugs for the shortest duration of time, that is, 3 to 6 years as compared with the longest 22 years are among the largest group of women with chemically addicted infants. This suggests that all women who abuse alcohol and drugs during pregnancy are vulnerable to delivering a chemically addicted infant. It also dispels the stereotype of a long term drug user as the more likely candidate to have a chemically addicted child.

The study sought the opinions of the respondents as to what resource they thought would be most useful.

B. RECOMMENDATIONS : A Program Proposal Model

The literature, research studies, observations of professionals working with pregnant addicted women and the women themselves, agree that the current approaches and lack of resources are failing to meet the service needs required to address the prevention of the growing numbers of children born with Fetal Alcohol and Neonatal Abstinence Syndrome. Historically the problem has been approached with a lack of understanding and effectiveness. Some practices such as the imprisonment of chemically addicted women were punitive and destructive not to mention ineffective. The research indicates these women are addicts, not by choice and for pleasure, but largely the unfortunate victims of circumstance and illness. The tragedy is that by leaving these women untreated their children suffer an unfortunate legacy and one that is totally preventable.

The following is a program proposal model for both inpatient and outpatient treatment of pregnant addicted women. The program is designed specifically for a target population with characteristics similar to those displayed in the sample of this study. However, the same components and general strategy could be modified for different geographical settings and samples within the general population of pregnant addicts.
The following is a program proposal for the treatment and prevention of prenatal chemical addition.

1. Barriers to Program Implementation
2. Values
3. Program Justification
4. Program Goals and Objectives
5. Strategy for Program Planning and Design

1. BARRIERS TO PROGRAM IMPLEMENTATION

The study confirms previous indication that there are several barriers to the development of our effective program of intervention. These barriers are documented in the literature reviewed and supported by the finding in the study. They include: the stigma attached to female substance abuse especially during pregnancy, the failure of medical and social service agencies to diagnose and identify the pregnant addict, the current inability of existing resources to deliver services in a context that is comparable with women's orientation. In most programs the focus is alcohol and drug abstinence and recovery. However, the literature and research indicate the majority of women in treatment for alcoholism and drug abuse have a history of physical and/or sexual abuse and violence, which is not treated conjunctively with substance abuse and finally the lack of an effective treatment model.

2. VALUES

The underlying values of any program designed to address the problem of prenatal substance abuse will largely determine the program's success or failure. The stigma attached to female substance abuse during pregnancy and the associated blame
placed for the consequences must be abandoned. A non-judgemental approach is essential if we are to stop alienating women and if we want to successfully engage them in recovery. They must not be made to feel the victim but instead must be allowed to be effective participants in their recovery. Awareness and knowledge of the public, professionals in the programs and the participants is crucial in precipitating the attitudinal and behavioral changes necessary to ensure abstinence from addictive substances during pregnancy. The program must be committed to providing accessible, appropriate treatment.

3. PROGRAM JUSTIFICATION

The overview of the problems associated with prenatal substance abuse outlined in the literature review speak for themselves of the high cost in terms of human tragedy to the mothers and their children. Also to be considered are economic implications. Given the vast array of abnormalities and disabilities, these children require extensive and often on-going medical and rehabilitative treatment involving a variety of discipline and services. Only about fifty percent of chemically addicted children remain in the custody of their natural parents and the rest require foster placement adoption services, or institutionalization. In the United States the Mental Health administration estimated the cost of fetal alcohol for direct service to be 2.4 billion dollars for adults and children (United States Department of Health and Human Services, 1981). The cost for Neonatal Abstinence Syndrome unknown.

4. GOALS AND OBJECTIVES

The following goals are intended to be achieved through a comprehensive program implemented at the community level with a preventative treatment, education
focus. The goals and objectives will be linked to an appropriate mission statement adopted by the agency developed to facilitate the proposed program model.

Goals:

- To address the growing problem of Neonatal Abstinence Syndrome and Fetal Alcohol Syndrome by engaging substance abusing pregnant women in effective recovery treatment.

- Increase parenting skills of addicted parents and the women’s ability to provide for the special care needs of their chemically addicted infants.

- Increase the chances of addicted parents becoming and remaining drug free.

- Through education reduce the number of women who are substance abusing.

- Through education increase the awareness of and treatment for Neonatal Abstinence Syndrome and Fetal Alcohol Syndrome children.

Objectives:

- To reduce the reported number of new borns diagnosed as Neonatal Abstinence Syndrome and/or Fetal Alcohol Syndrome by 30% within 18 months of the beginning of the program.

- To decrease the number of chemically addicted infants apprehended by the Ministry of Social Services and Housing placed in foster homes by twenty-five percent. The reduction will be the result of increased awareness of prenatal substance abuse, decreased prenatal substance abuse and enhanced parenting skills as well as more effective intervention by Child Welfare authorities.

- Reduce the rate of recidivism of alcoholism and drug addiction among participants in the program by twenty-five percent.

- Measurably increase public awareness and knowledge of the risks associated with prenatal substance abuse by means of public awareness campaigns. The objective will
be that after twelve months, public education surveys will indicate a fifty percent increase in the awareness of the risk associated with prenatal substance abuse.

5. STRATEGY FOR PROGRAM PLANNING AND DESIGN

Funding for the program will be requested from the Provincial Government. However the agency itself will function under its own mandate separate and distinct from any existing group such as Public Health, Mental Health, Alcohol and Drug Program, the Ministry of Social Services and Housing (Child Welfare). The rationale for an independent agency is that it will allow for its own mandate to be carried out and so avoid any conflict of interests such as in the case of Ministry of Social Services and Housing where the primary focus is child welfare. It will also help avoid some of the stigma attached to groups such as Mental Health and Alcohol and Drug Programs.

Board of Directors

The Board of Directors will be elected and will have representation from various facets of the community including recovered parents of chemically addicted children, the medical and educational communities.

Location

Because of guilt, denial and fear of blame most pregnant substance abusers avoid public institutions. Understandably these women are most comfortable and least threatened in their own environment. For these reasons and the increased likelihood of gaining access to these women the best location would be in the Inner City core.

PROGRAM COMPONENTS
The four major components will be:

1. Client services and referral to support services
2. Education - both professional and public
3. Future goals
4. On-going program planning and evaluation

1. Clinical Services and Reference to Support Services

The client population will be all greater Vancouver pregnant substance addicted women with the focus on the down town core.

Screening for program participation: Potential clients can be referred by other agencies, Welfare and Health care professionals, their families or they can self-refer. Prior to admission to the program clients will be screened by means of an intake assessment and completion of a questionnaire designed to assess the applicant's level of addiction and current life stresses which will be addressed in treatment (see Appendix V for screening tool questionnaire)

The services are free of charge

The purpose is both in-patient and out-patient treatment services. The in-patient part of the program provides detoxification and intensive therapy for up to three months for both pre and post natal women. Provisions are made for the clients to have their children with them if they wish during this phase of treatment and so avoid the problem of separating the mother from her children. The out-patient part of the program provides on-going therapy and education for up to two years post-natally at which time the client will be referred appropriately to other agencies if follow-up is required.
Resources: Personnel and their roles. In assessing the personnel required for this program it is important to recognize the complexity involved in serving a client at risk as giving birth to a chemically addicted infant. The mother and baby have many different needs as well as a considerable number of groups and agencies come into play including Child and Welfare, Medical, Public Health, and the Family Court system. Each group has its own mandate and agenda for intervention with the client. This in itself can be overwhelming and threatening, especially in a time of crisis, such as the birth of an addicted child.

For purposes of this program a social worker will be assigned to each participant. The social worker in the role of advocate will act separately from each of the various systems the mother potentially could encounter and will help to facilitate the mother's successful intervention with these systems, while supporting her emotionally and making sure her rights are respected. The social worker will also act as the primary therapist for past trauma therapy and drug addiction treatment/recovery. Therefore, special training in these two areas and a knowledge of resources would be a prerequisite.

Each client's medical care will be provided for by a physician knowledgeable in obstetrics as well as substance abuse and Neonatal Abstinence Syndrome. A nurse will be responsible for the client's medical care as well as providing teaching services in the areas of Neonatal Abstinence Syndrome, Fetal Alcohol Syndrome and care of these children's special needs. A family support worker will function in the dual role of providing child care for the client's children while the client participates in the program and modelling parenting skills for the client. The Administrator will be responsible for the general administration of the agency (i.e. the budget, hiring staff, and reporting to the Board of Directors).

Various outside agencies will be invited to participate in the program for specific functions. These include: Ministry of Social Services and Housing (Child
Welfare) The ministry social worker, whose responsibility it is to provide child protection, is generally viewed as a tremendous threat to the mother of chemically addicted infants. The social worker usually becomes involved after the child is born and presents the mother with a number of expectations she is obliged to conform to if she wants to maintain custody of her child. At this late date the mother is often unprepared and unable to meet the demands. Her failure to do so inevitably leads to the apprehension of her child. In this program one consistent ministry social worker, knowledgeable in the areas of addictions and Neonatal Abstinence Syndrome will be asked to see each client as soon as the client enters the program. This will reduce the threat significantly by allowing the mother time to work with the social worker with the goal of meeting the expectations before the child is born. This approach also puts the ministry social worker in a far less conflicting role. She can support the mother and still address the child welfare concerns. This kind of intervention would reduce the risk of apprehension and allow the Ministry to function in a positive supportive capacity.

Ministry of Social Services and Housing (Social Assistance). This division of the Ministry would be engaged to ensure each client has a source of income to provide basic needs of housing, food and clothing for herself and her family. In many cases this will enable the client to stop participating in self destructive means of financial support such as prostitution and selling drugs. Public Health will provide services in the area of pre-natal teaching. Another division of public health. Healthiest Babies Possible will provide nutrition counselling for the mother and her infant. The hospital responsible for maternity care for the mother and treatment for the infant will be invited to present in-services to the agency clients regarding services rendered by the hospital. This will prepare the client for what to expect during her hospitalization and that of her child. It is also anticipated that the information provided by hospital personnel such as a medical social worker and special care nurse will relieve some of the client's anxiety about the forthcoming hospital experience. Self-help programs such as Alcoholics Anonymous, Adult Children of Alcoholics, Alanon will be invited to
provide information to the agency regarding the services these groups can provide. Consultant vocational counsellors will be utilized to provide assistance with information regarding retraining as well as support and counselling for women wishing to seek employment.

Mechanism of Co-ordination Among Team Members will be a Team approach. Each client will be assigned to a team consisting of a physician, nurse and social work therapist. On-going treatment decisions would be made by the team in collaboration with the client. The goal of the team is a trusting therapeutic relationship with the client.

The social worker will be responsible for the initial intake assessment and the designing of a program for treatment and education with each client.

Each client will be assessed individually and needs are addressed in order of priority. These include:
- medical needs
- shelter, food, clothing
- if the client has children, the issue of the children will be addressed so the client will be free to attend the program
- post trauma and substance abuse treatment, counselling will be provided
- development of coping skills and building of self-esteem through stress management training, co-dependency training, goal setting and communication skills
- life skills teaching (employment readiness training and support for seeking employment, referrals made to appropriate resources for retraining)
- education: ongoing for staff and clients in the area of substance abuse, as well as a program to educate the general public

**Organization Structure** (see Figure VII)
FIGURE VII: Organization Structure: Program for Pre and Post Natal Chemically Dependent Women
Program: Participation will be voluntary and a client can leave any time she wishes.

Each client will be actively involved in formulating her own treatment plan along with the assistance of the social worker. A contract will specify the requirement of each client’s treatment plan. People involved in significant relationships with the client will also be encouraged to participate in the program. The educational component will include in the areas of addictions, Neonatal Abstinence Syndrome and Fetal Alcohol Syndrome. The teaching, by staff, will also impart practical skills in regard to parenting and functioning drug free. Post discharge follow-up will be arranged for each client depending on need. Some areas of follow-up will include referrals to drug and alcohol programs, twelve step program, family therapy and on-going one-to-one counselling.

- Given the challenges facing these women it is expected significant numbers will at some point be tempted to leave the program or perhaps engage in conduct such as relapse into drug use, that would threaten their appropriateness for continued participation. These cases would be dealt with individually. Each client would be supported and encouraged to remain and their reasons for wanting to leave explored with them and the team members. Those who relapse into drug use would not be able to continue with the program until they are willing to participate in detoxification and are willing to negotiate a new contract with their team.

Treatment Schedule for Inpatients: The following schedule is based on the intervention theory and treatment recommendations proposed by Reed (1987) and supported by the findings in this study.
- daily individual therapy
- daily group therapy
- weekly A.A. or Narcotic's Anonymous
- monthly medical consults
- at least one meeting with a social worker from the Ministry of Social and Housing and Child Welfare
- at least one meeting with representatives or staff members from Infant Development Programs, St. Paul's Hospital special care nursing and maternity ward
- scheduled prenatal training sessions
- weekly counselling with spouse
- weekly peer support group meeting

**Outpatient Treatment Schedule** would be the same as that for inpatient with the exception of weekly one-to-one counselling sessions and weekly group therapy as opposed to daily counselling and group therapy.

2. Educational Programs

The teaching component of the program will be ongoing and multi-faceted involving education of clients and the community. The education provided to clients will be provided by agency staff. Culturally appropriate material will be used. The clients who are successfully participating in the program will be encouraged to act as peer teachers and support counsellors. Also clients in recovery who have had chemically addicted children can act as role models and teachers for new clients.
These same people can also provide in-services to other agencies including hospitals, infant development programs, Ministry of Social Services and Housing and Public Health. In doing this they can promote understanding and knowledge to professionals working in the area. Education will be very much a reciprocal process between agencies, staff and clients as each group has its own valuable area of expertise and perspective on the issues.

The clients and team members will participate in educational development of public awareness campaigns by sharing their expertise in the area of prenatal substance abuse, Neonatal Abstinence Syndrome and Fetal Alcohol Syndrome.

3. **Future Goals:** To create satellite programs in strategic areas of the province to provide continuity of service. Agencies could be set up in rural areas with provisions made for the access to client information between agencies.

4. **Evaluation:** The program will utilize two levels of evaluation formative and summative. **Formative** evaluation will be used in the developmental stages. As the program is developing there will be mistakes and problems to resolve until the program reaches the point where it runs smoothly. During the time period the program is in the developmental stage there will be ongoing evaluation, trial and error and revisions in implementation. The evaluators at this stage will be administrator, staff and clients. Each group will be encouraged to provide input that helps to improve the program. The evaluators are involved with the program, conceptualizing what the program is, how it works and suggesting improvements. The **summative** evaluation will be conducted by an outside objective evaluator who has no
personal investment in the program. The function of this stage of evaluation will be to assess the total impact of the program to make a statement about what has been achieved, in terms of goals and objectives.

The evaluation will be a measurable exercise and will involve both micro and macro levels. Micro level of assessment will consist of a measurement of the client's progress and achievement of the goals of recovery, development of parental skills, and decreasing risk of delivery of chemically addicted infants. The measurement will be based on the co-ordinator's and client's assessments of goal attainment. Macro level of assessment will comprise a comparison of Vancouver with a city such as Winnipeg which has a comparable target population. The two cities will be compared in terms of their numbers of chemically addicted infants born in the first twelve months after the start of the program. The goal will be to assess if the program has successfully diminished the number of Neonatal Abstinence Syndrome and Fetal Alcohol Syndrome infants.

A similar study could be conducted just for Vancouver Inner City comparing the number of chemically addicted infants for a twelve month period before and after the start of the program.

C. SUGGESTIONS FOR FURTHER RESEARCH

Further research is needed on the long term effects of prenatal substance abuse and the numbers of adults who have been affected. The current studies in this area are limited because it is relatively recent that prenatal substance has been proven to have negative affects on fetus. Closely related to this is need for more
research on the service needs of adults who grew up undiagnosed as Fetal Alcohol Syndrome or Neonatal Abstinence Syndrome. As the number of children with Neonatal Abstinence Syndrome increases these children will present a growing challenge to the educational system. Research is needed in this area in terms of exploring how their numbers will impact the educational system and what provisions, modifications and programs will be needed to accommodate their needs.

D. CONCLUSIONS

As the literature and research indicate, programs for substance abusers rarely make a distinction between the differences in treatment needs between men and women, not to mention the differences in treatment needs for pregnant women. Treatment services which address the special needs of mothers of Neonatal Abstinence Syndrome and Fetal Alcohol Syndrome children are even less developed. Studies such as this only begin to open up the idea that special needs exist. This study has provided the potential recipients of service with an opportunity to have some input into what they feel their needs are and what services they think would best help them. It is hoped the study will be of some value in the future development of resources.
APPENDIX I

SURVEY INSTRUMENT

INTERVIEW GUIDE

The purpose of this interview is to find out what kinds of resources would be most helpful to you as a mother of Neonatal Abstinence Syndrome child in dealing with problems of past traumatic experiences and the use of alcohol and drugs. In order to do this the interview will involve a series of questions which will focus on five main areas; these include:

1) your current life circumstances
2) past trauma or situations in your life you found painful and difficult to deal with
3) the nature of your use of chemical substances (by chemical substances I mean alcohol, prescribed and non-prescribed drugs, caffeine, nicotine
4) an exploration of past resources you have been involved with to help to deal with past trauma and assist you with alcohol and drug recovery
5) explore what resources you feel would best meet your service needs in terms of past trauma and drug and alcohol recovery.

You will find that many of the questions and topics we will discuss in this interview cover information you and I have already dealt with in our previous work.
together within the context of our patient social worker relationship. Even though you may feel you are repeating answers to questions and discussing issues we addressed in past intervention the purpose of that intervention was different and separate from this research project. Your answers are important. Please keep in mind that the information you provide will be kept confidential and you will in no way be judged on the answers you give.

By participating in this interview you will help me meet the requirements of a Master's of Social Work degree. You will also be contributing valuable information which will be of benefit in future planning of resources for parents of Neonatal Abstinence infants. These resources will not only benefit the parents but their children as well.

The interview will take approximately one hour.

I. Demographic Information

1) What is your age?
2) What grade did you complete in school?
3) What is your source of income?
4) Where do you live?
5) Is this your first child?
6) How many other children do you have?
7) Have any of your other children been diagnosed as Neonatal Abstinence Syndrome or Fetal Alcohol Syndrome?
II. Current Circumstances

1) Are you involved with the father of the baby?
2) Has your partner ever been physically and/or emotionally abusive toward you?

III. Past Trauma

1) Were either of your parents substance addicted?
2) When you were a child did either of your parents die or for whatever reason leave the family?
3) Have you ever been placed in a foster home or group home?
4) Were you adopted?
5) Were you physically, sexually or emotionally abused as a child? As an adult?
6) What affects do you feel this abuse may have had on your life?

IV. Substance Abuse

1) During the pregnancy what chemical substances were you taking? This includes both prescribed and non-prescribed. How was it taken? (i.e. intravenously, or orally?)
2) How long have you been taking these substances?
3) How old were you when you first began taking drugs and, or alcohol?
4) Did you stop taking drugs/alcohol when you became aware of your pregnancy?
5) Were you aware during your pregnancy that taking drugs and/or alcohol could affect the baby?
6) If you had been made aware that drugs and alcohol taken during pregnancy could affect the baby would you have tried to stop?
V. Resources

1) What resources, if any, have you been involved with related to alcohol and drug problems?

2) What resources if any, have you been involved with related to other problems, i.e. physical or sexual abuse, adoption, depression?

3) Have you found any of the resources you have mentioned to have been helpful to you? If so, how?

4) Do you have any personal resources (i.e. spouse, friend, mother, father, siblings, who you feel would support and help you if you choose to stop taking drugs and/or alcohol?

5) Can you think of any reason that would prevent you from participating in an alcohol and drug rehabilitation program?

6) Do you fear that participation in a program would be held against you in anyway?

7) What resources or services do you feel would be most helpful to you in dealing with issues of alcohol and drug abuse and/or past unresolved trauma?
APPENDIX II

SURVEY INSTRUMENT (Revised)

PART A

INTERVIEW GUIDE

The purpose of this interview is to find out what kinds of resources would be most helpful to you as a mother of a Neonatal Abstinence Syndrome child in dealing with problems of past traumatic experiences and the use of alcohol and drugs. In order to do this the interview will involve a series of questions which will focus on five main areas; these include:

1) your current life circumstances
2) past trauma or situations in your life you found painful and difficult to deal with
3) the nature of your use of chemical substances (by chemical substances I mean alcohol, prescribed and non-prescribed drugs, caffeine, nicotine
4) an exploration of past resources you have been involved with to help to deal with past trauma and assist you with alcohol and drug recovery
5) explore what resources you feel would best meet your service needs in terms of past trauma and drug and alcohol recovery.
You will find that many of the questions and topics we will discuss in this interview cover information you and I have already dealt with in our previous work together within the context of our patient social worker relationship. Even though you may feel you are repeating answers to questions and discussing issues we addressed in past intervention the purpose of that intervention was different and separate from this research project. Your answers are important. Please keep in mind that the information you provide will be kept confidential and you will in no way be judged on the answers you provide.

By participating in this interview you will help me meet the requirements of a Master’s of Social Work degree. You will also be contributing valuable information which will be of benefit in future planning of resources for parents of Neonatal Abstinence infants. These resources will not only benefit the parents but their children as well.

The interview will take approximately one hour.

I. Demographic Information

1) What is your age?
2) What grade did you complete in school?
3) Have you had any other formal education? (ie. university, trade school)
4) What is your main source of income?
5) Do you have any other source(s) of income?
6) Where do you live?
7) Is this your first child?
8) How many other children do you have?
9) Have any of your other children been diagnosed as Neonatal Abstinence Syndrome or Fetal Alcohol Syndrome?
II. Current Circumstances

1) Are you involved with the father of the baby? What is your relationship with the father? (ie. married, divorced, no contact, separated?) Can you tell me more about your relationship?

2) Has your spouse or partner ever been physically abusive? Emotionally abusive? Can you tell me more about this? How did you react? How have you coped with abuse?

III. Past Trauma

1) Were either of your parents substance addicted? Can you tell me more about this? What was it like for you? How do you feel about this now?

2) When you were a child did either of your parents die or, for whatever reason, leave the family? What effect did this have on you? How did you feel when this happened?

3) Have you ever been permanently separated from your family? Can you talk about this?

4) Were you ever placed in a foster home or group home? How did you feel about this?

5) Were you adopted? If so at what age? How do you feel about the adoption? Do you have contact with your adoptive parents? Were your adoptive parents of the same racial origin as you? If not how do you feel about this now?

6) Were you physically or sexually abused as a child? As an adult? Can you tell me more about this?
7) Do you feel you have ever been emotionally abused? Can you discuss this further?

8) What effects do you feel the physical, sexual and, or emotional abuse have had on your life?

IV. **Substance Abuse**

1) During the pregnancy what chemical substances were you taking? This includes both prescribed and non-prescribed chemical substances. How much of each substance would you take? How was it taken (ie. intravenously or orally)?

2) How long have you been taking these substances?

3) How old were you when you first began taking drugs and or alcohol? Can you tell me about the circumstances surrounding this? How did you obtain the drugs?

4) Did you stop taking drugs/alcohol when you became aware of your pregnancy?

5) Did you try to stop taking drugs/alcohol when you became aware of your pregnancy?

6) Were you aware during pregnancy that taking drugs and/or alcohol could affect the baby?

7) If you had been made aware that drugs and alcohol taken during pregnancy could affect the baby would you have tried to stop?

8) Would you be willing to go through a drug rehabilitation program to help you stop taking drugs?
V. Resources

1) What resources, if any, have you been involved with related to alcohol and drug problems? Can you tell me more about the program(s)?

2) What resources if any, have you been involved with related to other problems, i.e. physical or sexual abuse, adoption, depression? Can you tell me more about these resources?

3) Have you found any of the resources you have talked about to be helpful to you. If so, how? Would you like to continue to resume your involvement with any of them?

4) Do you have any personal resources (i.e. spouse, friend, mother, father siblings, who you feel would support and help you if you choose to stop taking drugs and/or alcohol? Can you tell me more about them? How would they be supportive to you? How do you perceive them as being helpful?

5) Do any member of your family, community or friends discourage you from stopping drug and/or alcohol use. Can you tell me more about this?

6) Can you think of any reason that would prevent or discourage you from participating in an alcohol and drug treatment/rehabilitation program? For example does the cost of such a program concern you? If you have other children, would child care be a problem? If you participated in a residential program would separation from the baby present a problem? Do you fear that participation in a program would be held against you in any way? Can you explain this further?

7) Can you tell me what kinds of resources you feel would be most necessary and helpful to you? What problems and issues do you feel require the most priority?
## APPENDIX III

## CODE BOOK

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<thead>
<tr>
<th>Variable Name</th>
<th>Description of Variable</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>respondent's age in years</td>
<td>exact age in years</td>
</tr>
<tr>
<td>Edlevel</td>
<td>respondent's level of education</td>
<td>1. elementary school education  2. some high school education  3. high school graduation  4. some post secondary school graduation  5. post secondary school graduation</td>
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<tr>
<td>Insource</td>
<td>respondent's primary source of income</td>
<td>1. professional  2. non professional employment  3. social assistance  4. unemployment insurance  5. spousal support  6. illegal activities  7. prostitution  8. other</td>
</tr>
</tbody>
</table>
Secincom respondent's second source of income

1. professional
2. non professional employment
3. social assistance
4. unemployment insurance
5. spousal support
6. illegal activities
7. prostitution
8. other
9. missing

Race respondent's racial origin

1. Caucasian
2. Black
3. Asian
4. Native Indian
5. East Indian
6. other

Residence where, respondent resides

1. down town cores hotel or apartment
2. east side of Vancouver
3. west side of Vancouver
4. suburbs
5. Native Indian reservation
6. other
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<tr>
<th><strong>N.A.S. Kids</strong></th>
<th>the number of other neonatal abstinence or fetal alcohol syndrome born to the respondent</th>
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<tbody>
<tr>
<td><strong>Marital</strong></td>
<td>respondent's marital status 1. married 2. divorced 3. single 4. separated 5. co-habitating</td>
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<tr>
<td><strong>Father</strong></td>
<td>respondent's relationship with the father of the baby 1. no contact 2. occasional 3. frequent</td>
</tr>
<tr>
<td><strong>Spabuse</strong></td>
<td>abuse inflicted upon the respondent by her spouse or partner 1. no abuse 2. physical abuse 3. emotional abuse 4. physical and emotional abuse 5. missing</td>
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<tr>
<td><strong>Addictpa</strong></td>
<td>the respondent's parent(s) who were substance addicted 1. mother 2. father 3. neither parent 4. both parents</td>
</tr>
<tr>
<td>Absentpa</td>
<td>parent(s) of the respondent who left the family when the respondent was a child</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>1. mother</td>
</tr>
<tr>
<td></td>
<td>2. father</td>
</tr>
<tr>
<td></td>
<td>3. neither parent</td>
</tr>
<tr>
<td></td>
<td>4. both parents</td>
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<tr>
<th>Famsep</th>
<th>respondent's separation from family of origin</th>
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<tbody>
<tr>
<td></td>
<td>1. apprehended by child welfare authorities for parental abuse and or neglect</td>
</tr>
<tr>
<td></td>
<td>2. run away</td>
</tr>
<tr>
<td></td>
<td>3. abandoned</td>
</tr>
<tr>
<td></td>
<td>4. relinquished for adoption or foster home placement</td>
</tr>
<tr>
<td></td>
<td>5. given away as a child to other adults</td>
</tr>
<tr>
<td></td>
<td>6. no separation</td>
</tr>
<tr>
<td></td>
<td>7. other</td>
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<tr>
<th>Fosterho</th>
<th>respondent's placement in a foster or group home</th>
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<tr>
<td></td>
<td>1. foster home</td>
</tr>
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<td>2. group home</td>
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<td>3. missing</td>
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<th>Adoption</th>
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</tr>
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<td></td>
<td>2. no</td>
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<tr>
<td>Abusehx</td>
<td>respondent's history of abuse</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1. physical abuse</td>
<td>2. sexual abuse</td>
</tr>
<tr>
<td>3. emotional abuse</td>
<td>4. physical and sexual abuse</td>
</tr>
<tr>
<td>5. physical and emotional abuse</td>
<td>6. sexual and emotional abuse</td>
</tr>
<tr>
<td>7. physical, sexual and emotional abuse</td>
<td>8. no abuse</td>
</tr>
<tr>
<td>9. other</td>
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<tr>
<th>Alcoabus</th>
<th>alcohol use during pregnancy</th>
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<td>2. no</td>
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<table>
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<th>Coabus</th>
<th>cocaine use during pregnancy</th>
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<td>2. no</td>
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<th>Heroabus</th>
<th>heroin use during pregnancy</th>
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<td>2. no</td>
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<th>Methabus</th>
<th>methadone use during pregnancy</th>
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<td>2. no</td>
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<table>
<thead>
<tr>
<th>Marabus</th>
<th>marijuana use during pregnancy</th>
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<td>1. yes</td>
<td>2. no</td>
</tr>
<tr>
<td>3. entire pregnancy</td>
<td>4. not taken</td>
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</table>
| Heroinf | Frequency of heroin use by the respondent | 1. daily  
|         |                                           | 2. weekly  
|         |                                           | 3. monthly  
|         |                                           | 4. not taken  
| Heroinf | Duration of heroin use by the respondent | 1. first trimester  
|         |                                           | 2. second trimester  
|         |                                           | 3. third trimester  
|         |                                           | 4. throughout the entire pregnancy  
|         |                                           | 5. not taken  
| Tandrf  | Frequency of ritalin and talwin use by the respondent | 1. daily  
|         |                                           | 2. daily  
|         |                                           | 3. monthly  
|         |                                           | 4. not taken  
| Tandrd  | Duration of talwin and ritalin use by the respondent | 1. first trimester  
|         |                                           | 2. second trimester  
|         |                                           | 3. third trimester  
|         |                                           | 4. throughout the entire pregnancy  
|         |                                           | 5. not taken  

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<th>Duration of Prescribed Use</th>
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<td>Pernaref</td>
<td>1. daily</td>
<td>1. first trimester</td>
</tr>
<tr>
<td></td>
<td>2. weekly</td>
<td>2. second trimester</td>
</tr>
<tr>
<td></td>
<td>3. monthly</td>
<td>3. third trimester</td>
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<td></td>
<td>4. not taken</td>
<td>4. throughout the entire pregnancy</td>
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<tr>
<td></td>
<td></td>
<td>5. not taken</td>
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<tr>
<td>Pernacd</td>
<td>frequency of prescribed</td>
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<td></td>
<td>narcotic use by the</td>
<td>duration of prescribed use</td>
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<td>respondent</td>
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<td>2. second trimester</td>
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<td></td>
<td>3. third trimester</td>
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<td></td>
<td></td>
<td>4. throughout the entire pregnancy</td>
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<tr>
<td></td>
<td></td>
<td>5. not taken</td>
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<tr>
<td>Benzodif</td>
<td>frequency of prescribed</td>
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<td></td>
<td>benzodiazepine use by</td>
<td></td>
</tr>
<tr>
<td></td>
<td>the respondent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. daily</td>
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</tr>
<tr>
<td></td>
<td>2. weekly</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. monthly</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. not taken</td>
<td></td>
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<tr>
<td>Benzodid</td>
<td>duration of prescribed</td>
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<td>benzodiazepine use by</td>
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<td></td>
<td>the respondent</td>
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<tr>
<td></td>
<td>1. first trimester</td>
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<td></td>
<td>2. second trimester</td>
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<tr>
<td></td>
<td>3. third trimester</td>
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<td></td>
<td>4. throughout the entire pregnancy</td>
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<td></td>
<td>5. not taken</td>
<td></td>
</tr>
<tr>
<td>Yearabu</td>
<td>duration in terms of year</td>
<td>exact number of years</td>
</tr>
<tr>
<td></td>
<td>the respondent has been</td>
<td></td>
</tr>
<tr>
<td></td>
<td>abusing addictive substances</td>
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<tr>
<td>Preawar</td>
<td>did the respondent stop taking drugs when she became aware of her pregnancy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. yes [3. missing ]</td>
<td></td>
</tr>
</tbody>
</table>

| Drugawar      | during the pregnancy was the respondent aware of the risks of taking drugs |
|               | 1. yes \[2. no \] |

| Drugstop      | respondent’s willingness to stop taking drugs during the pregnancy had she been aware of the risks |
|               | 1. willing to stop \[2. unwilling to stop \] \[3. missing \] |

| Drugreha      | respondent’s willingness to participate in a drug rehabilitation program |
|               | 1. yes \[2. no \] \[3. missing \] |

| Rehabre       | drug and alcohol rehabilitation resources |
|               | 1. drug and alcohol programs (counselling) \[2. A.A. (self-help program) \] \[3. residential treatment programs \] \[4. outpatient treatment programs \] \[5. other \] \[6. no rehabilitation programs \] |
| Help reha | Alcohol and drug rehabilitation resources the respondent found to be helpful | 1. Drug and alcohol programs (counselling) |
| Suppres | | 2. A.A. self-help program |
| | | 3. Residential treatment programs |
| Helpref | | 4. Outpatient treatment programs |
| | | 5. Other |
| | | 6. No of the programs |
| | | 7. Missing |
| Suppres | Services and/or resources the respondent has been involved in to address issues related to post traumatic stress syndrome | 1. Physical abuse resources |
| | | 2. Sexual abuse resources |
| | | 3. Emotional abuse resources |
| | | 4. Other |
| | | 5. Missing |
| Helpref | Post traumatic stress syndrome resources the respondent found to be helpful | 1. Physical abuse resources |
| | | 2. Sexual abuse resources |
| | | 3. Emotional abuse resources |
| | | 4. Other |
| | | 5. No resources were helpful |
| | | 6. Missing |
Personnel personal resources the respondent feels help and support them in stopping the use of drug and alcohol

Additional personal resources the respondent feels help and support them in stopping the use of drugs and alcohol

People in the respondent's close contact who encourage and support the use of alcohol and drugs

1. spouse (partner)
2. friend(s)
3. mother
4. father
5. sibling
6. professional(s) (physician, social worker, clergy)
7. other

8. no one
Resdet deterrents for the respondent to participate in a drug and alcohol rehabilitation program

1. expense
2. child care
3. transportation
4. separation from the baby while she participates in a program
5. respondent's fear that their admission to needing a rehabilitation program may be used against them by child welfare authorities as evidence of addiction
6. missing

Bweight infants N.A.S. symptom: low birth weight
1. yes
2. no

Sleepdis N.A.S. symptom: sleep
1. yes
2. no

Shrillcry N.A.S. symptom: incessant shrill cry
1. yes
2. no

Hyperref N.A.S. symptom: hyperactive reflexes
1. yes
2. no
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<tr>
<th>Symptom</th>
<th>N.A.S. symptom</th>
<th>1. yes</th>
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<tr>
<td>Tremors</td>
<td>tremors</td>
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<tr>
<td>Convulsions</td>
<td>convulsions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feedprof</td>
<td>feeding problems i.e. un-co-ordinated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vomitting</td>
<td>vomiting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorgain</td>
<td>poor weight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deaphore</td>
<td>diaphoresis (copious perspiration)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deattend</td>
<td>(infant's decreased capacity to attend)</td>
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<tr>
<td>Eye aver</td>
<td>eye contact aversion</td>
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<tr>
<td>Symptom</td>
<td>Description</td>
<td>Yes/No</td>
<td></td>
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<tr>
<td>Hyperact</td>
<td>N.A.S. symptom: hyperactive</td>
<td>1. yes</td>
<td></td>
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<td></td>
<td></td>
<td>2. no</td>
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<tr>
<td>Unconsol</td>
<td>N.A.S. symptom: difficult to console</td>
<td>1. yes</td>
<td></td>
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<td></td>
<td></td>
<td>2. no</td>
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<tr>
<td>Diarrhea</td>
<td>N.A.S. symptom: diarrhea</td>
<td>1. yes</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>2. no</td>
<td></td>
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<tr>
<td>Sneezing</td>
<td>N.A.S. symptom: sneezing</td>
<td>1. yes</td>
<td></td>
</tr>
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<td></td>
<td></td>
<td>2. no</td>
<td></td>
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<tr>
<td>Prematur</td>
<td>N.A.S. symptom: premature delivery</td>
<td>1. yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. no</td>
<td></td>
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<tr>
<td>Narcotre</td>
<td>N.A.S. infant medically treated with narcotic</td>
<td>1. yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>preparations to reduce withdrawal symptoms</td>
<td>2. no</td>
<td></td>
</tr>
<tr>
<td>Prenatcr</td>
<td>the respondent received prenatal medical care</td>
<td>1. yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>prior to delivery</td>
<td>2. no</td>
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### NEONATAL ABSTINENCE SYNDROME FLOW SHEET

**DATE:**

**TIME**

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<thead>
<tr>
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<tbody>
<tr>
<td><strong>Excessive Cry</strong></td>
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<tr>
<td><strong>Tremors</strong></td>
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<tr>
<td><strong>Sucking</strong></td>
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<tr>
<td><strong>Sneezing</strong></td>
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<tr>
<td><strong>Stools</strong></td>
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<tr>
<td><strong>Skin Abrasions</strong></td>
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<tr>
<td><strong>Diaphoresis</strong></td>
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<tr>
<td><strong>Vomiting</strong></td>
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<td></td>
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<tr>
<td><strong>Convulsions</strong></td>
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<tr>
<td><strong>Comments</strong></td>
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</table>

**GUIDE TO WITHDRAWAL SCORING**

**Excessive Cry**
- 0 - Normal
- 1 - High pitched
- 2 - Continuous High Pitched

**Sneezing**
- 0 - None
- 1 - Present

**Tremors**
- 0 - None
- 1 - Minimal, when handled
- 2 - Marked when infant undisturbed
- 3 - Continuously abnormal

**Sucking**
- 0 - Normal
- 1 - Weak
- 2 - Stops early
- 3 - Absent or almost
- 4 - Incoordinate

**Stools**
- 0 - Normal number
- 1 - More than average
- 2 - Frequent loose, watery

**Skin Abrasions**
- 0 - None
- 1 - Redness of knees and elbows
- 2 - Breaking of the skin
- 3 - #2, plus other abrasions
- 4 - Increasing lesions daily

**Diaphoresis**
- 0 - None
- 1 - Present

**Vomiting**
- 0 - None
- 1 - Occasional, without feeding
- 2 - Occasional, any time
- 3 - Frequent vomiting

**Convulsions**
- 0 - None
- 1 - Present

**Comments**
- NN - see Nurses Notes for further comments

**OB-7/21**

**MR063(08/89)**
APPENDIX V

QUESTIONNAIRE : SCREENING TOOL

The following questionnaire is designed to be used as a screening tool for chemically addicated women. Specifically the questionnaire attempts to illicit information in as non-threatening a manner as possible concerning the extent of addiction and present signs of unresolved trauma. Question 3 for example is asked for the purpose of determining the person's level of tolerance which is a good indication of the level of addiction; the higher the tolerance the more severe the addiction is (Sokol, 1985). Asking a question such as how many drinks or lines of cocaine does the client take a day can be somewhat intimidating and can trigger denial because there is no built in sense of acceptance. Question (2) however is asked in such a way that the person doing the screening acknowledges that the person does take drugs and alcohol so the person being questioned does not have to deny this and her answer renders information as to the tolerance for drugs. Skokol suggests this kind of questioning provides for a sensitive means of obtaining information which is often difficult to obtain because of the respondent's guilt and fear of rejection or a negative responsibility to the person questioning them.

Question 1 is similar in that it acknowledges the respondent drinks or takes drugs - again this inspires less of denial response than asking a question such as "Do you drink or take drugs?"

Question 5 is designed to determine which areas of a person's life are most problematic and stressful again. This question is asked in such a fashion as to diminish denial by implying acceptance.
The questionnaire is relatively brief which is also important because most of these women at least before they are engaged in treatment tend to be secretive and uneasy about answering questions concerning themselves. Therefore each question has to be carefully selected and treated in the most sensitive manner to provide the most information.

**QUESTIONNAIRE**

**PART I**

Date: Day  Month  Year

Please answer the following questions. If a question does not apply to you do not answer it.

1. At what age did you start to drink alcohol and/or taking drugs
   
   Age _____ years old

2. How many drinks or lines of cocaine or hits of heroin does it take to make you feel the effects of the alcohol, cocaine or heroin?
   
   ______

3. Have you ever had "black-outs" while drinking or periods of time when you cannot remember?
   
   Yes ( ) No ( )

4. Do you have situations in your life like family problems, money worries, feelings of loneliness, that make you feel like drinking?
   
   Yes ( )  No ( )
5. Check on the list below when you would drink the most or take drugs
   ( ) when I am with friends have a good time
   ( ) when I am worried about my children
   ( ) when I am worried about money
   ( ) when I am not feeling good about myself
   ( ) when I feel alone
   ( ) when I argue with my partner
   ( ) when my partner physically abuse me
   ( ) when I have painful feelings about my past

6. Have you ever felt bad or guilty about drinking or taking drugs?
   Yes ( ) No ( )

7. Have you ever felt you would like to cut down on your drinking or taking drugs?
   Yes ( ) No ( )

8. If you answered to the above question do you think you could use some help and support to stop drinking?
   Yes ( ) No ( )

PART II

1. Do you feel you have any assistance at this time from any one or any service to help you stop drinking or taking drugs?
   Yes ( ) No ( )

   please specify
   ______________________________________________________
   ______________________________________________________
2. Would you be interested in seeing a counsellor for one to one counselling to help you stop drinking or taking drugs?
   Yes ( ) No ( )

3. Do you think it would help you to attend a weekly group with other young women to talk about drug and alcohol problems or other problems?

4. What problems would you like the group to discuss?
   ( ) alcohol and drug problems
   ( ) how to stop drinking and taking drugs
   ( ) how to feel better about myself
   ( ) how to deal with partner problems
   ( ) other problems
   Please specify __________________________
   __________________________
   __________________________

5. Would you be interested in attending a weekly group where you would receive information about how to look after your health, how to eat to stay healthy, how alcohol can affect your unborn child if you drink during pregnancy, how to deal with your feelings and problems?
   Yes ( ) No ( )

6. Have you ever been involved with a counsellor a group or any service to help you stop drinking?
   Yes ( ) No ( )

7. Do you feel you were helped?
   Yes ( ) No ( )
   If yes please describe how __________________________
   __________________________
   __________________________
BIBLIOGRAPHY


Light, William 1988. Alcoholism and Women Genetics and Fetal Development. Springfield Ill. USA


