

UNIVERSITY OF CALGARY

Mothers at Risk of having a Child with Fetal Alcohol Spectrum Disorder: Comparing
those who have and do not have Open Child Protection Service Files

by

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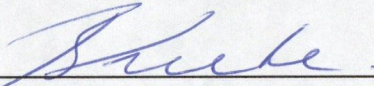
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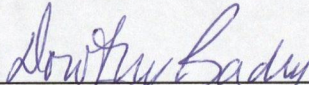
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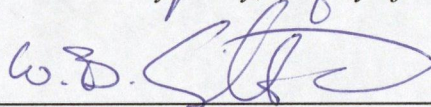
The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled “Mothers at Risk of having a Child with Fetal Alcohol Spectrum Disorder: Comparing those who have and do not have Open Child Protection Service Files” submitted by Emily Holmes in partial fulfilment of the requirements of the degree of Master of Social Work.



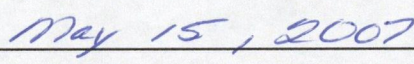
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Date

Abstract

Child welfare involvement is a major factor in the lives of mothers who have, or are at risk of having, a child with Fetal Alcohol Spectrum Disorder (FASD). The purpose of this study is to explore the differences in characteristics between mothers who are involved or not involved with Child Protection Services (CPS) and are at risk of having a child with FASD. This is explored by analysing Addiction Severity Index (ASI) intake forms from FASD prevention programs in Alberta. The results demonstrate that women with an open CPS case differ from women who do not have an open CPS case in the areas of demographics, health status, psychiatric status, mother's childhood history and family relationships and community service access. The implications of these findings, and how they relate to the design of a comprehensive continuum of family centered services, are considered.

Acknowledgements

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Dedication

To all the mothers who struggle with substance use and the service providers who are working in partnerships with families to create positive changes.

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Chapter One: INTRODUCTION

1.1 Context

Fetal Alcohol Spectrum Disorder (FASD) is a major health and social issue concerning Canadian society and the international community. The term FASD has been introduced to describe the range of permanent physical, mental, behavioural and learning disabilities that may affect an individual who is exposed in utero to alcohol. To date, of all the addictive substances a pregnant woman can ingest, alcohol is the most harmful to a developing fetus (Marcellus, 2004a). FASD is the most common form of developmental disability and birth defects in the western world (Clarke & Gibbard, 2003) and although no national rates of FASD exists, the incidence of FASD is estimated as 10 per 1000 live births (Public Health Agency of Canada, 2005a).

People with FASD may experience a lifetime of problems with learning, memory, attention span, problem solving, and hearing (Meschke, Holl & Messelt, 2003). Youth with FASD are disproportionately represented in the juvenile and criminal justice system (Fast, Conroy & Loock, 1999); have more frequent co-occurrences of Attention Deficit Hyperactivity Disorder; (Fuchs, Burnside, Marchenski & Mudry, 2005; Godel, Lee & McCallum, 2000; Nanson & Hiscock, 1990); are more likely to be victims of physical, sexual and domestic violence; are more prone to disrupted school experiences; exhibit more frequently identified inappropriate sexual behaviours; and often have alcohol and drug problems (Streissguth et al., 2004). Children and youth with FASD may have an exaggerated vulnerability to peer pressure and environment, behavioural volatility, impairment in understanding the need for social rules and cooperative living, and an exaggerated need for immediate gratification (Devries & Waller, 2004). Although many

researchers agree on the problems people with FASD experience, disagreement has occurred in the field regarding the amount of alcohol that needs to be ingested to cause FASD (e.g. Abel, 2006; Greene, Ernhart, Martler, Sokol & Ager, 1990; Russell, Czarnecki, Cowan, McPherson & Mudar, 1991; Sood et al., 2001).

Acting on FASD is a major commitment of the Government of Canada which is expressed in the development of prevention strategies, screening tools, and improving Canada's knowledge and expertise about FASD (Public Health Agency of Canada, 2005). In Canada, the dominant approach to preventing FASD has been to focus on a single determinant, alcohol use, and its impact on children's health (Poole, 2003). While prevention of FASD is on the national agenda, it remains a struggle to keep a focus on the support and treatment of mothers (Greaves et al., 2002). An example of this is the common public health message, "FASD is 100% preventable." This phrase is widespread in academic and public literature. However, it is an overly simplistic message that may be seen as blaming mothers rather than presenting the whole picture of FASD. That is, that the factors associated with prenatal alcohol use are complex and resistant to change.

Often forgotten are the systemic issues that surround these birth mothers' lives and the factors that have led women into and kept them in a life of substance abuse. Poverty, unemployment, violence, mental illness, isolation and unresolved feelings from childhood sexual abuse are all issues that affect these women's lives and need to be addressed to prevent FASD. Blaming and shaming the mother who gives birth to, or is at risk of giving birth to a child with FASD, allows the government to divert public attention from related determinants of health and absolve themselves of responsibility for alleviating social issues that relate to the underlying causes of FASD (Marcellus, 2004b).

As long as these underlying circumstances remain and are not properly addressed by government policies and human services, the statement that FASD is 100% preventable will remain erroneous.

The focus on alcohol as a single determinant of FASD creates barriers for women who need help, because it does not address their multiple needs. Not receiving help from health and social services can have deleterious effects on these mothers as they often find themselves involved with child welfare. Of all child welfare investigations in Canada, 34% involve a parent with a drug or alcohol problem (Trocme et al., 2001). Prenatal and maternal substance abuse is a major concern for child welfare authorities and although data is limited, researchers have identified prenatal substance abuse as a known risk factor for 50% of infants coming into foster care annually in Victoria, BC (Marcellus, 2004a). Children with FASD are disproportionately represented in provincial child welfare authorities, and in Manitoba make up 11% of all child welfare cases (Fuchs et al., 2005). Yet, little is known about these mothers who have, or are at risk of having, a child with FASD and are entwined with the child welfare system. With a greater understanding of the life circumstances of these mothers, policies and programs can meet these families' unique needs and begin to reduce the impact prenatal substance abuse has on children, families and the community.

1.2 Purpose of Study

The purpose of this study is to examine the differences in characteristics and circumstances between women who have, or are at risk of having, a child with FASD and *are involved* with child welfare and women who have, or at risk of having, a child with FASD and *are not involved* with child welfare. In particular, this study sought to answer

the question: how do the two groups of women differ across the domains of: demographics, health status, economic stability, substance use history, legal status, childhood history and family relationships, psychiatric status and access to community services?

1.3 Rationale for this Research

While studies have found a high rate of child welfare involvement among women who have, or are at risk of having, a child with FASD, few have explored how those involved with child welfare differ from those who are not. That is, what factors are related to the opening of child protection files in situations involving FASD. Understanding these differences will assist health and human service sectors in providing responsive services for this population in hopes of improving life circumstances and keeping families together. In family centered care, designing services and practices based on mother's needs is a foundational step in creating a working alliance and partnership with families (Dunst, Trivette & Deal, 1994; Trute & Hiebert-Murphy, 2007). The ultimate goal is to enhance child well-being while keeping families together. This research seeks to improve understanding of how to better support mothers who have, or are at risk of having, a child with FASD and who are involved with child welfare protection services.

1.4 Thesis Overview

This thesis is divided into five chapters. The first chapter describes the rationale and purpose of this study. The second chapter provides the reader with an overview of the literature on the characteristics of pregnant and postpartum women who have substance abuse issues and birth mothers of children with FASD. This chapter also

explores the connection between substance abuse and child welfare. That is, the differences between mothers and pregnant women in substance abuse treatment facilities based on their child welfare status. The third chapter outlines the methodology employed in the data collection phase, the research instrumentation, and operational definitions of key variables in the analysis strategy. The fourth chapter presents differences in characteristics and life circumstances when women with and without open Child Protection Service (CPS) files are compared. The fifth chapter provides a discussion of the findings, study limitations and implications for family centred services.

Chapter Two: LITERATURE REVIEW

2.1 Introduction

Researchers have sought to understand the characteristics and life circumstances of pregnant women who abuse alcohol and/or drugs. Two areas of literature have emerged to explore this issue. The first examines the characteristics and life circumstances of pregnant and postpartum women and the second explores the lives of birth mothers of children who have FASD. Contributing to the body of literature on prenatal substance use is research which does not exclusively focus on pregnant, postpartum or parenting women but rather looks at women in general and their substance abuse issues. These three separate research domains will be reviewed to gain insight into the lives of women who have, or may be at risk of having, a child with FASD.

There has been a development in terminology from Fetal Alcohol Syndrome (FAS) to the current terminology, Fetal Alcohol Spectrum Disorder (FASD). FAS was first used in 1973 to describe a group of children born to alcoholic mothers who had growth retardation, characteristic facial features and central nervous system involvement (Jones & Smith., 1973). It is now recognised that prenatal alcohol exposure can cause a broad spectrum of developmental, emotional, behavioural and social deficits beyond the original case definition (Clarke & Gibbard, 2003). FASD includes FAS and other terms that have been previously suggested to identify individuals with a spectrum of problems but not classic FAS (Sokol, Delaney-Black, Nordstrom, 2003). The term FAS, is frequently used in the literature, particularly that which predates 2003. This literature review will use the term FAS when directly referenced from a source that uses this term.

In the following section, the characteristics of women who have, or at risk of having, a child with FASD will be explored in distinct categories; however, these individual issues do not exist solely on their own. Instead these women's issues intertwine to create a complex life with each problem potentially exacerbating the impact of another. For example, it will be shown that many of these women are impoverished which has also been associated with poor birth outcomes, poor physical health, mental health issues and criminal involvement. Many of these women have experienced childhood trauma and sexual abuse which has also been linked to mental health issues and criminal behaviour which in turn has also been associated with issues of unemployment, poverty and reduced parenting capacity. This literature review recognises the interconnectedness but it is not in the scope of this review to examine the numerous linkages between these issues.

2.2 Characteristics and Life Circumstances of women who have, or may be at risk of having a Child with FASD

2.2.1. Demographic Characteristics of Women who have, or may be at risk of having, a Child with FASD

2.2.1.1 Education: Pregnant and postpartum women with substance abuse issues

There are equivocal findings in regards to educational attainment when comparing pregnant women who use and who abstain from alcohol. Pregnant women who use alcohol have been found to have less education than women who abstain (Kvigne, Bad Heart Bull, Welty, Leonardson & Lacina, 1998; Project CHOICES Research Group, 2002), while no significant difference in education between the two groups has also been found (Marcenko, Spence & Rohweder, 1994; Meschke et al., 2003). Studies that have examined characteristics of pregnant and postpartum women at treatment or intervention

programs are consistent and have established that low levels of education among the women are common (Clark, 2001; Connors et al., 2004; Grant, Ernst, Streissguth & Stark, 2005; Haller, Knisley, Dawson & Schnoll, 1993).

2.2.1.2 Education: Birth mothers of children with FASD

When birth mothers of children with FAS have been compared to birth mothers of children without FAS, birth mothers of children with FAS have been found to be less educated (Bagheri, Burd, Martsof & Klug, 1998; Kvigne et al., 2003; May et al., 2005; Viljoen, Croxford, Gossage, Kodituwakku & May, 2002). A study that profiled birth mothers of children with FAS showed that 61% of the women had not completed high school (Astley, Bailey, Talbot & Clarren, 2000).

2.2.1.3 Marital Status: Pregnant and postpartum women with substance abuse issues

The literature suggests that pregnant women who have substance abuse issues are more likely to not be married (Kvigne et al., 1998; Meschke et al., 2003) than pregnant women who abstain from alcohol and drugs. Pregnant and postpartum women that present at treatment or intervention programs have also been found to have low marital rates (Grant et al., 2005; Haller et al., 1993).

2.2.1.4 Marital Status: Birth mothers of children with FASD

When birth mothers of children with FAS have been compared to birth mothers of children without FAS, birth mothers of children with FAS are more likely to be single (Bagheri et al., 1998; May et al., 2005) or not married and living with a partner (May et al., 2005). Other research has found no differences in marital status between birth mothers of children with FAS and birth mothers of children without FAS (Viljoen et al.,

2002). Differences in marital status found in Viljoen et al. (2002) may be due to small sample sizes and low marriage rates in the control group. A profile of 80 birth mothers of children with FAS, found that 62% of mothers were married or living with a partner at the time they gave birth to the child affected by alcohol exposure (Astley et al., 2000).

2.2.1.5 Age: Pregnant and postpartum women with substance abuse issues

There is inconsistency in research that examines differences in age between pregnant women who abuse substances and pregnant women who abstain. Studies have suggested that pregnant women who abuse alcohol are older (Marcenko et al., 1994; Project CHOICES Research Group, 2002), are younger (Leonardson & Loudenburg, 2003) and are not significantly different in age (Kvigne et al., 1998; Meschke et al., 2003).

2.2.1.6 Age: Birth mothers of children with FASD

Advancing age among mothers is a well established risk factor for FAS (Bagheri et al., 1998; Jacobson, Jacobson & Sokol, 1996; Kvigne et al., 2003; Sokol, Ager, Martier, Debanne, Ernhart, Kusma et al., 1986). However, two studies based in South Africa found that mothers of children with FAS and mothers of children without FAS were young and no difference in age between groups was found (May et al., 2005; Viljoen et al., 2002). The authors suggest that the lack of significance is substantially explained by the duration, degree, and regularity of binge drinking during pregnancy, with some other unique cofactors, such as nutrition, body size, and general low SES (May et al., 2005). That is, the women were having children with FAS at a young age because of their heavy binge drinking and other co-factors that are associated with the occurrence of FAS.

2.2.2 Health Status of Women who have, or may be at risk of having, a Child with FASD

2.2.2.1 Health Status: Pregnant and Postpartum women with substance abuse issues

A sparse literature suggests that the physical health of women who have, or may be at risk of having, a child with FASD is compromised, but for the most part physical health is not studied. A study of pregnant and parenting mothers at residential treatment centres found that women had poor overall health and reported respiratory problems, sexually transmitted diseases, and other gynaecological problems (Conners et al., 2004). The probability of receiving inadequate health care for these problems is increased if these women are impoverished and socially isolated. This can result in even higher-risk pregnancies and complicate labour and delivery and postpartum recovery (Grella, 1997).

2.2.2.2 Health Status: Birth mothers of children with FASD

Birth mothers of children with FAS can suffer from many alcohol related illnesses including liver disorders, anemia, nutritional deficits, gastrointestinal disorders and central nervous system disorders (Abel, 1982). Although current research has not investigated these issues, past research has shown that more than half of women who give birth to children with FAS die within five years of such births (Clarren, 1981; Olegard & Sabel, 1979; Streissguth, Brookstein, Sampson & Barr, 1989).

2.2.3 Economic Stability of Women who have, or may be at risk of having, a Child with FASD

2.2.3.1 Economic Stability: Pregnant and postpartum women with substance abuse issues

Women who have, or are at risk of having, a child with FASD have lives characterised by economic instability. Unemployment and low socio-economic status is common for pregnant and parenting women with substance abuse issues (Conners et al.,

2000; Haller et al., 1993; Leonardson & Loudenburg, 2003) as is having male partners who provide little financial support (Conners et al., 2004). Pregnant and postpartum women involved in programs aimed at preventing subsequent substance-exposed births, have been found to live in unstable environments and be highly dependent on government financial assistance (Grant et al., 2005). Tait (2000) found that the majority of women participating in a Manitoba study on substance abuse and pregnancy lived in extreme poverty, particularly those living in Winnipeg. Sixty-eight percent of the women who lived in Winnipeg reported incomes below \$10,000 per year, with no woman reporting an income above \$25,000 per year.

2.2.3.2 Economic Stability: Birthmother of children with FASD

A study of 80 birth mothers of children with FAS revealed that 78% of women had a gross yearly income of less than US\$10,000 at the time of delivery (Astley et al., 2000). Researchers have found a higher incidence of FAS among women who are classified as having lower socio-economic status (Abel, 1995; Abel & Hannigan, 1995; Bingol et al., 1987; May et al., 2005). It has been argued that poverty is the major determinant for the occurrence of FAS as it provides the kind of host environment that exacerbates alcohol's toxic actions (Abel, 1995; Abel & Hannigan, 1995). This is due to poverty's association with malnutrition, physical abuse, drug abuse, smoking, obstetric complications, and poor prenatal and postnatal care which can all interact and exacerbate the effects of alcohol on a fetus (Bagheri et al., 1998). Abel & Hannigan (1995) suggest that sub-optimal maternal nutrition is a provocative factor for FAS because alcohol can reduce nutrient availability to both mother and fetus. In Able's (1998b) opinion, "Nutrition is compromised in alcoholism because alcohol has a high energy content and

replaces other energy sources in the diet. While nutritional factors alone cannot give rise to FAS, alcohol consumption alone cannot account for its occurrence. The two almost invariably go together” (p. 176). Not only are pregnant and parenting women with substance abuse issues more likely to live in poverty than their counterparts but their unborn children are more susceptible to FAS because of the associations that poverty brings.

2.2.4 Substance use history of Women who have, or may be at risk of having, a Child with FASD

Much of the literature that examines substance use history among women who have, or are at risk of having, a child with FASD explores and compares alcohol intake, type of alcohol consumed, and pattern of use. However, there is little literature on the personal and family dynamics that are consistent with alcohol consumption during pregnancy. This sparse literature serves as the basis of the review offered here.

2.2.4.1 Intergenerational Substance Abuse: Pregnant and postpartum women with substance abuse issues

Family histories of addiction are common in the lives of women with substance abuse issues (Medrano, Hatch, Zule & Desmond, 2002; Ramlow, White, Watson & Leukefeld, 1997; Stein & Cyr, 1997) as well as in the lives of pregnant and postpartum women with substance abuse issues (Haller et al., 1993). Kvigne et al. (1998) found that women who consumed alcohol during pregnancy were more likely to have parents who did not abstain from alcohol than pregnant women who abstained. In this study, two-thirds of the pregnant women who drank alcohol during pregnancy had mothers who also drank. Grant et al. (2005) found that 85% of pregnant and postpartum women enrolled in an intervention program had parents who abused alcohol and/or drugs.

2.2.4.2 Intergenerational Substance Abuse: Birth mothers of children with FASD

A profile of 80 birth mothers of children with FAS, found that 79% of the women had a birth parent with an alcohol problem and 64% had a grandparent with an alcohol problem (Astley et al., 2000). Birth mothers of children with FAS more frequently have mothers (Kvigne et al., 2003; Viljoen et al., 2002) and fathers (May et al., 2005) who have problems with alcohol than mothers of children who do not have FAS. May et al. (2005) found that when compared to control mothers, birth mothers of children with FAS were smaller in height, weight, head circumference, and body mass index. The authors suggest that these factors indicate possible second generation fetal alcohol exposure and that these women's alcohol abuse may originate in part from behavioural traits associated with FAS such as impulsivity and poor judgement.

2.2.5 Legal Status of Women who have, or may be at risk of having, a Child with FASD

2.2.5.1 Legal Status: Pregnant and postpartum women with substance abuse issues

Legal involvement is common in the lives of pregnant, postpartum and parenting women who present at substance abuse treatment or intervention programs (Clark, 2001; Conners et al., 2004; Haller et al., 1993; Howell & Chasnoff, 1999). Grant et al. (2005) found extensive legal involvement among participants in a program aimed at preventing drug and alcohol exposed births. In this study, 63% of the women had been arrested and 80% had been incarcerated at some time in their life. The most frequent charges were for possession of drugs, child neglect, theft, prostitution, violent crimes, and public intoxication (Grant et al., 2005). Tait (2000) suggests that many pregnant and postpartum

women participate in illegal activities to financially provide for their children as social assistance and low paying jobs make this difficult to do.

2.2.5.2 Legal Status: Birth mothers of Children with FASD

Involvement in the legal system of birth mothers of children with FASD has not been thoroughly examined. Legal involvement has been found to extend back into the youths of birth mothers of children with FAS. Astley et al. (2000) found that 35% of birth mothers of children with FAS had spent time in a juvenile detention facility.

2.2.6 Mental Health Status of Women who have, or may be at risk of having, a Child with FASD

2.2.6.1 Mental Health Status: Pregnant and postpartum women with substance abuse issues

It is recognised that mental health disorders are common in women who seek help for their substance abuse issues (Conners et al., 2004; Grella, 1997; Jessup, 1996). Mental health problems are also evident in the samples of pregnant and postpartum women who present at treatment and intervention programs (Grant et al., 2005; Haller et al., 1993). This connection between pregnant and postpartum women's mental health disorders and their substance abuse has been further linked to the now well established association with experiences of physical, emotional and sexual abuse (Back et al., 2000; Grella, 1997; Stevens & Arbiter, 1995).

While limited data exists on the prevalence of specific mental health disorders affecting pregnant and postpartum women who have substance abuse issues, results from available studies suggest that mood disorders, anxiety, personality disorders (Grant et al., 2005; Haller et al., 1993) and phobias (Haller et al., 1993) are the most common. When compared to pregnant women who abstain from alcohol and drugs, pregnant women with

substance abuse issues have reported higher incidences of depression (Meschke et al., 2003) and greater psychological distress (Marcenko & Spence, 1995).

2.2.6.2 Mental Health Status: Birth mothers of children with FASD

A lifetime profile of birth mothers of children with FAS showed that 96% had between one and ten mental health disorders with the most common being post-traumatic stress disorder and simple phobia (Astley et al., 2000). Although the vast majority had at least one mental health disorder, only 37% of these women were receiving mental health treatment. Birth mothers of children with FAS have significantly more mental health issues and greater number of suicide attempts than mothers whose children do not have FAS (Kvigne et al., 2003).

2.2.7 Childhood History of Women who have, or may be at risk of having, a Child with FASD

2.2.7.1 Childhood Households: Pregnant and postpartum women with substance abuse issues

Women with substance abuse issues have often experienced negative events in childhood and have grown up in suboptimal household environments (Medrano et al., 2002; Messina & Grella, 2006). As would be expected, the same has been found in pregnant and postpartum women with substance abuse issues. These women have had difficult childhoods (Howell & Chasnoff, 1999), including growing up in impoverished, chaotic, single parent homes (Haller et al., 1993) or raised by someone other than their birth parents (Clark, 2001; Haller et al., 1993).

2.2.7.2 Childhood Households: Birth mothers of Children with FASD

Childhood household circumstances of birth mothers of children with FASD have been limitedly reviewed in the literature. A lifetime profile of birth mothers of children

with FAS found that in childhood, 24% of the women had foster parents, 17% lived in a group home and 22% had been involved with Child Protection Services (Astley et al., 2000).

2.2.7.3 Childhood Abuse: Pregnant and postpartum women with substance abuse issues

Numerous studies have drawn a connection between women's childhood physical and sexual abuse and later substance abuse (Brems, Johnson, Neal & Freemon, 2004; Mullen, Martin, Anderson, Romans & Herbison, 1993; Wilsnack, Vogeltanz, Klassen & Harris, 1997). It has been estimated that two-thirds of women seeking help for their addictions have a history of childhood sexual or physical abuse compared to one third of the women in the general public (Gil-Rivas, Fiorentine & Anglin, 1996). The connection between childhood abuse and the use of alcohol and other drugs has been suggested as a way women cope with the emotional pain resulting from abuse by someone close to them (Covington and Surrey, 1997).

Prior sexual abuse is a significant risk factor for alcohol consumption during pregnancy (Leonardson & Loudenburg, 2003) and pregnant women with substance abuse issues are more likely to have been sexually (Marcenko et al., 1994; Regan, Enrich & Finnegan, 1987), emotionally and, physically abused in childhood compared to pregnant women who abstain (Marcenko et al., 1994). Pregnant, postpartum and parenting women who present at alcohol and drug treatment have also been found to have high rates of abuse during childhood. Haller et al. (1993) found that 29% of pregnant and postpartum women in a substance abuse treatment program were physically abused as children, 27% acknowledged sexual abuse and 38% reported verbal/emotional abuse in childhood. Other studies have found similar high rates, with over half of pregnant and parenting

women with substance abuse issues reporting a history of abuse by their parents and three-fourths reporting being a victim of abuse by someone other than a parent (Conners et al., 2004). In a recent study looking at outcomes among pregnant and postpartum women enrolled in an intervention program, researchers found that 77% of women had been physically or sexually abused as children (Grant et al., 2005).

2.2.7.4 Childhood Abuse: Birth mothers of Children with FASD

Birth mothers of children who have FAS have been victims of sexual abuse more frequently than mothers of children who do not have FAS (Kvigne et al., 2003). A study of birth mothers of children with FAS showed that 58% of women had experienced childhood sexual abuse, 46% had been physically abused as a child and 95% had been sexually and/or physically abused sometime in their life (Astley et al., 2000).

2.2.8 Current Family and Social Circumstance of Women who have, or may be at risk of having, a Child with FASD

2.2.8.1 Substance Abuse Environments: Pregnant and postpartum women with substance abuse issues

Pregnant and postpartum women who abuse substances have family and social situations that can be characterised as complex, isolating, stressful and negative. Pregnant women with substance abuse issues are more likely to have another family member with a substance abuse problem (Marcenko et al., 1994) and live with someone with a drug and/or alcohol problem (Kvigne et al., 1998; Leonardson & Loudenburg, 2003) than pregnant women who do not abuse substances. Pregnant and postpartum women accessing treatment facilities have also been found to live with partners and have friends who were substance abusers themselves (Conners et al., 2004). In a study examining the subjective experiences of women with substance abuse problems in Manitoba, Tait

(2000) found that 50% of women reported they used substances during their pregnancy because their partner was using.

2.2.8.2 Substance Abuse Environments: Birth mothers of children with FASD

Viljoen et al. (2002) found that mothers of children with FAS more frequently have brothers, sisters, male partners and friends who drink heavily than mothers of children without FAS. A greater quantity of alcohol consumption by fathers, mothers, brothers and sisters of birth mothers of children with FAS has also been found (May et al., 2005). Having partners, friends and family members that have substance abuse problems may be a factor in the reported weak social support networks and isolation that has been reported by birth mothers of children with FAS (Viljoen et al., 2002) and pregnant and postpartum women (Conners et al., 2004; Howell & Chasnoff, 1999). This is important to recognise as larger, more satisfactory social support networks are a key factor in the success of achieving abstinence among birth mothers of children with FAS (Astley et al., 2000).

2.2.8.3 Partner Relationships & Abuse: Pregnant and postpartum women

Researchers have found that pregnant women who abuse substances are more likely to experience relationship problems, domestic violence (Kvigne et al., 1998) and be victims of physical and sexual abuse (Leonardson & Loudenburg, 2003) than pregnant women who do not abuse substances. Grant et al. (2005) found that 41% of women enrolled in intervention programs to prevent drug and alcohol exposed births were in an abusive relationship. Regan et al. (1987) found that 70% of pregnant women enrolled in a methadone maintenance program had been beaten as adults; 86% of these women were

abused by husbands/partners. Pregnancy offered no protection for these women and in some cases precipitated the abuse (Regan et al., 1987).

2.2.8.4 Partner Relationships & Abuse: Birth mothers of Children with FASD

Violence and abuse is highly prevalent in the lives of women who have given birth to a child with FASD. A lifetime profile of birth mothers of children with FAS found that 85% had been physically abused, 51% had been sexually abused and 86% had been emotionally abused as adults. Mothers of children with FAS have characterized their pregnancies as extremely stressful frequently citing a poor relationship with a heavy-drinking man as a cause of this stress. The women in this study linked this stress to heavier drinking during pregnancy (Viljoen et al., 2002). Abel & Hannigan (1995) suggests that maternal stress (marital discord, over-crowding, negative attitudes about pregnancy, etc.) or physical abuse is a correlate of poverty and may increase vulnerability to FAS. The authors assert,

Stress can act directly in itself by affecting maternal physiology and health and by potentiating the biological potency of alcohol, as well as indirectly as a contributing factor in the initiation and maintenance of alcohol consumption by pregnant women (e.g. Breshnahan, Zuckerman & Cabral, 1992). Whether by cause or effect, victims of violence during pregnancy are also more likely to be heavier drinkers (Amaro, Fried, Cabral & Zuckerman, 1990). (p. 451)

2.2.9 Community Services and Prenatal Care Access of Women who have, or may be at risk of having, a Child with FASD

2.2.9.1 Community Service & Prenatal Care: Pregnant and postpartum women with substance abuse issues

Although limited, research shows that pregnant and postpartum women who have substance abuse issues have higher service needs than their counterparts. Pregnant women with substance abuse issues have higher needs in the areas of housing, food, health care, transportation, clothing and safety than pregnant women who abstain from substances (Marcenko et al., 1994). Pregnant women who abuse substances also initiate prenatal care later (Marcenko et al., 1994; Meschke et al., 2003) than pregnant women who do not abuse substances.

2.2.9.2 Community Service & Prenatal Care: Birth mothers of Children with FASD

Initiating prenatal care later (Bagheri et al., 1998) and having fewer prenatal visits is significantly greater for birth mothers of children with FAS compared to birth mothers of children without FAS (Bagheri et al., 1998; Kvigne et al., 2003). A lifetime profile of birth mothers of children with FAS showed that 50% of the women accessed food donations or assistance and many acknowledged accessing support groups, clothing donations, mental health services, housing and legal assistance (Astley et al., 2000).

2.3 Summary of characteristics of women who have, or may be at risk of having, a child with FASD

Pregnant and postpartum women with substance abuse issues and birth mothers of children with FASD appear to have similar characteristics and life circumstances. These women's lives are plagued by poverty; mental health issues; legal involvement; abuse as children and adults; family histories of addiction; low levels of education; and dependency on community and government support. Since substance abuse often occurs

in the context of abuse, poverty and medical and psychosocial impairment, addressing substance abuse in conjunction with these negative life circumstances may thereby improve maternal and child outcomes (Jones, 2006). This host of factors, along with systemic barriers (e.g. poverty, racism, service access etc.), intensify the obstacles for women to receive optimal, holistic care that could potentially improve their life circumstances and help build parenting capacity.

2.4 Barriers to seeking help

Increased attention and research has been recently dedicated to determining what pregnant and postpartum women identify as the barriers to their seeking help. It is imperative to look at the women's perspective of these barriers in order to improve access to services, birth outcomes and family situations. Studies are relatively consistent in their findings, giving more credibility to defining programs and services on what appears to be common barriers.

2.4.1 Provider Attitudes & Distrust

Pregnant women have identified negative provider attitudes and distrust of the healthcare system as barriers to seeking help (Bloom et al., 2004; Howell & Chasnoff, 1999; Rutman, Callahan, Lundquist, Jackson & Field, 2000). These studies show that women feel that professionals' practice decisions are explicitly guided by their biases of parenting and substance abuse, and because of this, women feel a sense of powerlessness and shame (Rutman et al., 2000). A deep fear of distrust, rejection, blame and perceived prejudicial attitudes keep women away from seeking professional help for their situation (Rutman et al., 2000). Non-judgemental attitudes and positive emotional support have been shown to increase retention in services (Sword, Niccols & Fan, 2004).

2.4.2 Services not meeting needs

Women have identified the abstinence model as a barrier to seeking help for their substance abuse issues. Abstinence based services do not recognise the realities of women's lives and often create additional barriers to accessing support as these programs require sobriety before program entry and through the entirety of the program (Rutman et al., 2000).

Substance abuse treatment facilities and other community services often do not accommodate children. This is an issue as mothers identify their children as a motivating factor in seeking help but also claim that caring for children is time consuming and a deterrent to asking for assistance (Howell & Chasnoff, 1999). Lack of childcare (Astley et al., 2000; Rutman et al., 2000), transportation issues (Bloom et al., 2004; Klein & Zahnd, 1997), length of travel (Bloom et al., 2004) and waitlists (Rutman et al., 2000) have all been identified as barriers to service.

2.4.3 Fear

Women have many fears that serve as barriers in initiating contact with health and community services. Studies have found that women fear they will inevitably have their children removed by child welfare authorities if they seek help from professionals or obtain treatment (Astley et al., 2000; Rutman et al., 2000). Women often avoid medical and social services that may be beneficial because of fear of forced treatment and criminal sanctions (Deville & Kopelman, 1998).

2.5 Negative Responses to Prenatal Substance abuse

Before addressing current research that examines positive programming and services for pregnant women with substance abuse issues, it is important to consider what

does not work for this population. Coercive, mandatory treatment has been shown to make pregnant women fearful and less likely to seek help from human services (Rutman et al., 2000). Due to dearth of services for pregnant women who use substances this debate over mandatory treatment seems symbolic rather than a realistic one. Chavkin (1996) suggests the purpose of focusing the public's attention on this symbolic debate is to divert attention from the government's failure in its obligation to provide basic services.

To date, 200 women in more than 30 states have been prosecuted for fetal abuse in the United States (Marcellus, 2004b). Although Canada prosecutes pregnant women far less often than the United States, there exists one high profile Canadian court case. The 1997 case of Ms. G, a solvent-using pregnant woman, and her unborn child gained national attention and prompted the Canadian public to revisit the mandatory treatment and fetal rights debate. Ms. G was mandated to treatment by a Winnipeg judge, but while in treatment the Manitoba Court of Appeal overturned the judge's order allowing Ms. G to leave the treatment facility. Winnipeg Child and Family Services were then unsuccessful in taking the case to the Supreme Court of Canada. Ms. G gave birth to a healthy baby but it is possible that this case could have negatively affected other women and their unborn children. That is to say, public blaming and shaming of one woman could have deleterious effects on other pregnant women who were considering asking for help, but chose not to for fear of the repercussions. This was seen in South Carolina where following a successful prosecution of a pregnant woman who abused substances, referrals of women to recovery programs decreased by 80%, infant mortality increased

for the first time in 10 years and an increase of 20% of baby abandonment was seen (Paltrow, 1998).

2.6 Positive Responses to Prenatal Substance abuse

As was shown, pregnant women with substance abuse issues and their families are reluctant to access services and ask for help from healthcare and human service practitioners during their pregnancy. When a woman's perspective of the barriers in obtaining care/treatment/intervention is taken into consideration, programs will be more successful in attracting women and therefore more likely to help her improve the health and wellbeing of her and her child.

It is difficult to determine to what degree adverse birth outcomes are related to drug and alcohol exposure as many of these women's lives are complicated by numerous factors known to be associated with poor pregnancy outcomes such as poor nutrition, inadequate social support, smoking, stress and poor general health (Kennare, Heard & Chan, 2005; Sweeney, Schwartz, Mattis, Vohr, 2000). Able (2006) suggests, many of the "permissive" factors (e.g., smoking, poor nutrition) independently reduce antioxidant levels and thereby contribute to alcohol's effects. If adverse health, psychosocial and lifestyle factors are main contributors to birth outcomes then providers have the responsibility to respond to not only the substance abuse but also the surrounding issues, such as poverty and malnutrition, in order to be effective (Boyd, 2004; Kennare et al., 2005; Marcellus, 2004a; Sweeney et al., 2000). Research shows that programs are successful when they not only consider the barriers women face but also address the complex needs that accompany substance abuse (Astley et al., 2000; Boyd, 2004; Corse

& Smith, 1997; Curet & Hsi, 2002; El-Mohandes et al., 2003; Ernst, Grant, Streissguth, Sampson, 1999; Finkelstein, 1994; Rutman et al., 2000; Sweeney et al., 2000).

2.7 Child Welfare and Substance abuse

Prenatal and maternal substance abuse is one factor that is highly associated with child welfare involvement. In Victoria, British Columbia prenatal substance abuse has been consistently identified as a known risk factor for 50% of the infants coming into care annually (Marcellus, 2004a). In a review of all Canadian child welfare investigations in 2001, 34% involved a parent with a drug or alcohol problem (Trocmé et al., 2001). This is similar to the United States where substance abuse is a major factor contributing to open child welfare cases and out of home placement (Kovalesky, 2001). The American Public Welfare Association has reported that in some child welfare agencies in the United States, drug abuse was associated with more than 70% of new child welfare cases (Marcenko et al., 1994). Not only are families who are affected by substance abuse susceptible to having child welfare involved in their lives but also their children have different service experiences (e.g. entry, duration, exit etc.) than those children from non-substance abusing families involved with child welfare. Semidei, Radel & Nolen (2001) note:

Children from families with substance abuse problems tend to come to the attention of child welfare agencies younger than other children, are more likely than other children to be placed in care, and once in care likely to remain in care longer. They are also more likely than other children served by child welfare agencies to be the victims of severe and chronic neglect. Although the vast majority are discharged to a parent or relative, they are more likely than other

children to exit through adoption, which typically takes longer than family reunification (p.112).

Child welfare agencies have the difficult task of finding ways to strengthen families and keep them together while also protecting children. Substance abuse and child welfare is a complicated mix, as the cycle of recovery does not always align with the child's needs or with the timelines of child welfare decision-making. To make things more difficult for child welfare agencies, the reality of under funding means families often exceed what an agency can offer (Azzi-Lessing & Olsen, 1996). The lack of treatment services for these mothers makes it increasingly difficult for child welfare to find that balance of strengthening families while protecting children.

2.8 Children with FASD in the Child Welfare System

Many Canadian children with FAS grow up or spend part of their lives in the child welfare system (Asante & Nelms-Matzke, 1985; Butler et al., 1997; Fuchs et al., 1995; Habbick, Nanson, Snyder, Casey & Schulman, 1996). Although no national study exists, a few journals articles and Canadian provincial reports have provided information regarding the prevalence of children with FASD in the care of the government. A Saskatchewan study found that only 25% of children with FAS lived with their biological parents, 72% had been in foster care at some time and many of those children experienced multiple placements (Habbick et al., 1996). This is of particular concern because stability in home life appears to reduce the problems affecting a child with FASD and helps these children avoid adverse life outcomes (Streissguth, 1997; Streissguth et al., 2004). A British Columbia review of high risk children in care under the age of five,

found that of 151 children, 15% had FAS and an additional 20% were suspected of having prenatal alcohol effects (Butler et al., 1997).

A Manitoba report of children with disabilities in child welfare agencies, reported that children with FASD represented one third of the children with disabilities in care or 11.3% of the total number of children in care (Fuchs et al., 2005). Overrepresented were First Nations children; 81% of children with FASD were Treaty and 8.6% were Métis. A higher percentage of children with FASD (89.1%) were in permanent care of a child welfare agency than the non-FASD group (61.2%). As well, a higher percentage of children with FASD came into care for reasons relating to parental conduct (61.9%) than the non-FASD group (54%). Once in care 46.6% of children with FASD had no contact with their biological parents, which is almost double that of the non-FASD group.

2.9 Differences in Characteristics and Circumstances between pregnant, postpartum and parenting women with substance abuse issues based on Child Welfare Involvement

Prenatal and maternal substance abuse places women at risk for involvement with child welfare. Yet, not all pregnant, postpartum and parenting women who use alcohol and/or drugs will be involved with child welfare so it is important to explore what specific maternal demographics and psychosocial characteristics put certain women at risk of having child welfare involved in their lives.

2.9.1 Demographic differences based on Child Welfare Involvement

Over a 3-year period Shillington, Hohman & Jones (2001) collected data from all public alcohol and drug treatment programs in San Diego County, with the intent to compare mothers in treatment who were and were not involved with child welfare. Results show the two groups of women differed across several demographic variables.

The women who were involved with Child Protection Services (CPS) were more likely to be Hispanic, younger, less educated, less likely to be employed and not looking for employment, had more children and were less likely to be married. Women involved with CPS did report higher monthly income levels than women who were not involved with CPS. Although this was found to be statistically significant, all women in the sample lived in extreme poverty and the differences between the two groups were not substantially large. Monthly income level differences between the two groups were less than \$100. The other major study that has examined differences in characteristics of mothers, including pregnant women, in treatment based on their child welfare involvement found notably similar results (Grella, Hser & Huang, 2006). The study also found that mothers who were involved with child welfare were more likely to be Hispanic, younger, less educated, less likely to be employed, had more children and less likely to be married.

To date, only one study has compared pregnant women in substance abuse treatment based on their child welfare status. This study found no significant difference in race, employment, age, number of children, education, and income between women who were and were not involved with child protection services (Hohman, Shillington & Baxter, 2003).

Risk factors for disruption in primary care giving (i.e. an infant receiving substitute care because of the mother's inability to care for her infant due to neglect/abuse, incarceration, drug abuse or homelessness), were researched through a longitudinal study of 152 mothers at an intervention program for women with drug abuse issues and their infants. Significant risk factors for disruption in primary care included

being younger, having two or more children and having other children in foster care (Nair et al., 1997). Greater number of children has also been found to be positively correlated with out of home placement in a sample of low income, substance-abusing, African-American mothers with young children (Marcenko, Kemp & Larson, 2000).

2.9.2 Physical and Mental Health situation based on Child Welfare Involvement

Poor parental physical health has been associated with child maltreatment (Thoburn, Wilding & Watson, 2000) and chronic health problems have been found in one third of families involved with child welfare in Britain (Aldgate & Statham, 2001). Differences in physical health between pregnant, postpartum and parenting women with substance abuse issues based on child welfare involvement welfare have not been explored in the literature.

Differences in mental health issues between mothers in substance abuse programs, who are and are not involved with child welfare, have been limitedly explored in the literature, with no current research investigating these differences exclusively in pregnant and/or postpartum women. The two major studies differ in their findings of mental health situations between mothers who are, and are not, involved with child welfare. One study found no differences in mental health treatment history or number of psychiatric symptoms between the two groups (Grella et al., 2006) while the other study found mothers involved with child protection services had fewer chronic mental health problems than women not involved with child protection (Shillington et al., 2001). Moods of depression in substance using women have been found to be a risk for child placement (Nair et al., 1997).

2.9.3 Economic Stability based on Child Welfare Involvement

As shown in the previous demographic section of this review, unemployment and less education (Grella et al., 2006; Shillington et al., 2001) are more prevalent in substance abusing women who are involved with child welfare than women who are not. To further analyse differences in economic stability between the two groups, Grella et al. (2006) examined economic dependency. The researchers found that women who were involved with child welfare were less likely to have others who depended on them for economic support and were more likely to be dependent on others for the majority of support (Grella et al., 2006).

Equivocal results regarding living situation have been found throughout the literature. Two studies found that pregnant women (Hohman et al., 2003) and mothers (Shillington et al., 2001) in substance abuse treatment who were involved with CPS were more likely to report a permanent housing situation than their counterparts. Other researchers have found no significant differences in living situation between the two groups (Grella et al., 2006).

2.9.4 Legal Status based on Child Welfare Involvement

Differences in legal involvement between women who are and are not involved with child welfare are not consistent in the literature. One study found that mothers who were involved with child welfare had fewer number of arrests (Shillington, et al., 2001) while other researchers have found no significant differences in the number of arrests, convictions and number of months incarcerated between the two groups (Grella et al., 2006). Grella et al. (2006) found that women involved with child welfare had a lower rate

of being on probation or parole at the time of treatment admission compared to women who were not involved with child welfare.

2.9.5 Childhood Abuse based on Child Welfare Involvement

It has been argued that the failure to resolve conflicts and feelings resulting from childhood sexual trauma and the use of illicit drugs to cope with these feelings may disrupt the ability of a woman to parent her own children (Regan et al., 1987). This is evident in the high rates of childhood abuse and neglect among caregivers who have themselves been substantiated for neglect (Connell-Carrick & Scannapieco, 2006; Weston et al., 1993; Zuravin & DiBlasio, 1996).

Few studies have looked at the differences in prevalence of childhood sexual and physical abuse between mothers based on their child welfare involvement. Grella et al. (2006) found that mothers involved with child welfare had higher rates of lifetime physical abuse but comparable rates of lifetime sexual abuse than mothers not involved in child welfare (Grella et al., 2006). The researchers found that a lifetime history of physical abuse was associated with a 39% greater likelihood of being involved with child welfare services. Another study looking specifically at out of home placement, found that pregnant women with substance abuse issues, who reported a history of repeated sexual abuse in childhood, were more likely to have their children in foster care or placed with others. However, physical abuse in childhood was not a factor in child placement for these women (Regan et al., 1987).

2.9.6 Substance Use History based on Child Welfare Involvement

The route of entry and path of exit from substance abuse treatment along with the utilisation patterns of outpatient and inpatient treatment of mothers, based on their child

welfare status, have been explored in three major studies. Findings suggests that mothers involved with child welfare are more likely to be formally mandated (Hohman et al., 2003; Shillington et al., 2001) or referred by the criminal justice system to treatment (Grella et al., 2006) than mothers who are not involved with child welfare. Mothers involved with child welfare are also more likely to receive unsatisfactory treatment releases (Shillington et al., 2001), as are pregnant women involved with child welfare (Hohman et al., 2003). While a study that looked explicitly at pregnant women, found that those involved with CPS were less likely to access outpatient programs (Hohman et al., 2003), studies that have sampled mothers in general have found that those involved with CPS are more likely to access outpatient programs (Grella et al., 2006; Shillington et al., 2001).

Researchers have found that women who are, and are not, involved with child welfare differ in regards to their primary problem substance (Grella et al., 2006; Hohman et al., 2003; Shillington et al., 2001). Women involved with child welfare have been found to be younger the first time they used their problem substance (Grella et al., 2006) and no significant differences in age of onset has also been found (Shillington et al., 2001).

2.10 Summary of the Literature

The circumstances surrounding the lives of women who have, or may be at risk of having, a child with FASD make them susceptible to having involvement with the child welfare system. The literature suggests women with substance abuse issues who are involved with child welfare differ from women who are not involved with child welfare. It is vital to further build upon this literature, as the linkages between substance abuse and

child welfare will continue to grow. Understanding the lives of mothers with substance abuse issues who are involved with child welfare will enable multiple human services to respond appropriately to the barriers and issues surrounding these women's lives.

Society often forgets that pregnant women and mothers who have substance abuse issues were substance abusers before they were mothers, and like other people with addictions, it is not a simple road to recovery. Still prevailing is the attitude that substance-abusing women should stop having children but as Linares (1998) concludes:

The ability of women to bear children is often one way in which substance using women develop a connection to mainstream society and exert some control over their lives. That is, child bearing often serves to define a woman's role in a world that is otherwise disempowering (p. 254).

We punish women primarily through our child protection laws, which serve to create barriers in effectively addressing the problem (Rutman et al., 2000). Similar to all mothers, substance-using women do not want to lose their children and the fear of just that keeps them from accessing the help they need. However, the child welfare system and other human services can begin to address the problem by reducing barriers for women and assist mothers in addressing their life circumstances that may have led them to, and kept them in, a life of alcohol and drug abuse.

Chapter Three: METHODS

3.1 Design

The purpose of this comparative, descriptive study was to examine the differences in characteristics of mothers in FASD prevention programs based on their involvement or lack of involvement with child welfare. Addiction Severity Index (ASI) forms were examined to understand the differences between mothers who have, or are at risk of having, a child with FASD and *are involved* with child welfare, and mothers who have or are at risk of having, a child with FASD and *are not involved* with child welfare. To study these differences, secondary analysis was performed on 152 ASI forms previously collected for the research project “The Addiction Severity Index: A Feasibility Study Examining the Scientific Quality and Research Utility of Data gathered at three Alberta Sites”(Badry, Trute, Tough, Benzies, & Holmes, 2006).

3.2 Sample Sites

Two programs in two separate Alberta cities provided this research project with the ASI forms, these included: First Steps, Catholic Social Services in Edmonton and Parent Child Assistance Program (P-CAP), McMan Youth, Family and Community Association in Calgary. The programs promote healthy pregnancies and offer support to women through one-on-one mentorship and home visitation programs with the goal of preventing births of children affected by FASD. They provide women the opportunity to stabilize their life situation by accessing community services and by resolving complex issues contributing to substance abuse. They also help women to reduce use of alcohol/drugs, obtain alcohol and drug treatment and continue to support them through recovery if necessary.

3.3 Study Subjects: Service Recipient Files

Women who access the programs are considered to be high risk for giving birth to a baby exposed to alcohol or drugs. Participants in the programs are identified as either pregnant and using substances and/or are mothers who have given birth to a baby who was exposed to alcohol/drugs and may be at risk of delivering subsequent exposed infants.

The original data set consisted of 173 ASI forms, but as this study wanted to determine the difference in characteristics of women based on child welfare involvement, women who could not have involvement with child welfare were selected out of the data set. Women who could not have involvement with child welfare were considered to be pregnant women who had no other children. Under the Child Welfare Act, authorities cannot open a child protection file when a woman is pregnant. The law of Canada does not recognize the unborn child as a legal person possessing rights and therefore courts do not have *parens patriae*, the right to make unfettered decisions concerning people who are not able to take care of themselves, over unborn children. Of the 173 ASI forms, 21 women were pregnant and had no other children, and therefore these cases were excluded from the study, which left 152 remaining for analysis.

The original study used convenience sampling to obtain the ASI forms from prevention programs across Alberta. These sites were chosen as they represent some of the only FASD prevention programs in Alberta using the ASI at intake and therefore these sites could provide the researchers with the information they needed in order to carry out their study.

3.4 Data Collection

The ASI is used by the FASD prevention programs to collect information from women to help mentors/advocates gain insight into the lives of their clients and identify areas of potential support. The extent of psychosocial and addiction-based problems is assessed through its use. All ASI forms analysed in this research were completed through a personal interview conducted at intake by a trained and experienced staff member. The interview process takes approximately one to three hours. The ASI forms obtained, show interviews between the agency and the client took place from December 1999 to September 2005.

3.5 Instrumentation

The primary instrumentation tool used in this study is the Addiction Severity Index, 5th edition, modified for substance-abusing postpartum women (ASI-MSAPPW-1). The ASI was first developed in 1980 as a semi-structured interview designed to measure patient status in seven functional domains: alcohol use, drug use, medical and psychiatric status, employment/self support, family relations and illegal activity. It was one of the first instruments to measure health and social issues in conjunction with addiction (McLellan, Cacciola, Alterman, Rikoon & Carise, 2006). This instrument was adapted by the Washington State Parent-Child Assistance Program (P-CAP: formerly known as Birth to Three), for use with women involved in their program. The Washington program modified the ASI-5 to include supplemental questions on pregnancy and in doing so created the ASI-MSAPPW-1. The seven original domains remain, and new questions have been added that ask about maternal and prenatal drug and alcohol use, condition and situation of baby's birth, prenatal care, and contraception.

The ASI employed by the Alberta agencies includes the following ten components:

- Characteristics of mothers who use (alcohol and drugs)
 - A wide range of socio-demographic information on mothers, children and families
- Health status
 - Present and past medical issues with specific information on pre-natal care
- Employment/ financial support status
 - Present employment and sources of income
- Maternal substance use
 - A comprehensive list of lifetime and prenatal alcohol and drug use by type, quantity and frequency
- Legal Status
 - Present and past legal issues relating to charges and convictions along with history of incarcerations
- Family history/Childhood history
 - Information regarding family history of substance abuse and childhood circumstances of abuse and foster care placement
- Family/social relationships
 - Present and past living situation and relationship problems
- Psychiatric status
 - Present and past psychiatric issues not relating to drug and alcohol use
- Target child, other children and family planning
 - Issues relating to custody of the child, circumstances and involvement of the biological father, prenatal care and contraception
- Community services
 - Involvement and satisfaction with community services

3.6 Data Analysis

The data was analysed through the use of SPSS version 14.0. First, descriptive statistical analysis was employed to detail the demographic characteristics of the entire sample. Bivariate analysis, using the χ^2 statistic for categorical variables and *t*-tests for continuous measures, were then used to compare women with and without an open CPS file.

Eight domains of functioning were analysed by using select variables from each domain, along with the question in each domain asking the interviewer to rate client's need for treatment or counselling services. An extensive literature review aided the

process of determining which variables to consider for analysis in the study reported here, as did the researcher's desire to explore new areas. Grella et al.'s (2006) study, "Mothers in substance abuse treatment: Differences in characteristics based on involvement with child welfare services," represents the only study to date to examine the characteristics of mothers with substance abuse issues based on child welfare involvement using the ASI. Therefore, many of the variables Grella et al. (2006) chose to analyse were also employed by this research study. The variables analysed by Grella et al. (2006) were relevant in determining this study's research questions and allowed for comparison with the Grella et al. (2006) research findings.

3.7 Independent Variables included in the Analyses

The variables included in the analysis were grouped into eight domains of functioning: Demographic Information, Health Status, Economic Stability, Substance Use History, Legal Status, Childhood History and Family Relationships, Psychiatric Status and Community Service Access.

3.7.1 Demographic information

Demographic information was calculated for age, race, marital status, education and number of children.

3.7.1.1 Age

An age variable was created for the purpose of this thesis research as it was absent from the ASI. Date of birth and date of interview were used to create the age variable.

3.7.1.2 Race

The Race variable was recoded to reflect the demographics of the sample. *Aboriginal* and *Non-Aboriginal* were created for this variable. *Aboriginal* included those

respondents who self-identified as being *Aboriginal, half Aboriginal or Métis*. *Non-Aboriginal* included *White* and other ethnicities.

3.7.1.3 Marital status

Marital Status was recoded due to small cell size. The six categorical variables which included *Married, Never married, Remarried, Separated, Divorced, and Widowed* were recoded to *Never Married, Married/Remarried, and Divorced/Separated/Widowed*. Living in a “common-law” relationship is included in the *Married* category if respondent has been in such a relationship for over seven years.

3.7.1.4 Number of children

A new variable was created for total number of children as it was absent from the ASI. The ASI asks for ages of children who live and do not live with the mother. Each age was counted as one child and these were calculated together for total number of children.

3.7.1.5 Education

Education level is a continuous variable for number of years and months of education completed.

3.7.2 Health Status

Health Status was measured using number of times respondent was hospitalised for medical problems, existing chronic medical problems, Hepatitis C status, Hepatitis B status, HIV/AIDS status, and how the interviewer rated the respondent’s need for medical treatment.

3.7.2.1 Times hospitalised for medical problems

This is a continuous variable in which the interviewer coded the number of times a respondent was hospitalised. Hospitalisation is defined as spending the night in a hospital which does not include childbirth unless there were complications. Hospitalisation does include overdoses and delirium tremens but not detoxification, psychiatric or rehabilitation hospitalisations.

3.7.2.2 Chronic medical problems

This is a dichotomous variable in which the respondent answered yes or no to the question, *“Do you have any chronic medical problems which continue to interfere with your life?”* A chronic medical problem is defined as requiring continuous or regular care and not a temporary condition. Minor allergies, reading glasses and medical problems relating to alcohol and drug use are not included in this variable.

3.7.2.3 Hepatitis B Status

Hepatitis B was recoded to a dichotomous variable for positive and negative status.

3.7.2.4 Hepatitis C Status

Hepatitis C was recoded to a dichotomous variable for positive and negative status.

3.7.2.5 HIV/AIDS Status

HIV/AIDS was recoded to a dichotomous variable for positive and negative status.

3.7.2.6 Need for Medical Treatment

This was recoded to a dichotomous variable in which the interviewer records if respondent currently needed or did not need medical treatment.

3.7.3 *Economic Stability*

Economic stability was measured using employment status, housing situation, whether someone contributed to the support of respondent, number of people economically dependent on respondent and need for employment counselling.

3.7.3.1 Employment

This was recoded to a dichotomous variable for *employed* or *unemployed*. Employment pattern is recorded as the most representative, not necessarily the most recent.

3.7.3.2 Housing Situation

This was recoded to a four level categorical variable due to the small cell size in the original variable. The interviewer records the respondent's answer to the question, "*How would you describe your current housing situation.*" Categories include:

- Permanent/Stable
- Transient: Emergency shelter, transient drug free housing
- Living with Friends and relatives
- Other: homeless, long-term jail or prison, drug/alcohol facility

3.7.3.3 External Economic Support

This is a dichotomous variable in which the interviewer records respondent's answer to the question, "*Does someone (a person) contribute to your support in any way?*" Cash, housing and spouse's contribution are included in support, excluded is institutionalised support.

3.7.3.4 Economic Dependents

This was recoded to a 3 categorical variable in which the interviewer records the respondent's answer to the question, "*How many people depend on you for the majority of their food, shelter, etc.?*" This is regular ongoing support that does not include self-

support or a self-supporting spouse but does include dependents that are normally supported by the respondent but have not been recently. Categories include:

- 0
- 1-2
- 3 or more

3.7.3.5 Need for Employment Counselling

This was recoded to a three level categorical variable due to the small cell size in the original variable. The interviewer rates the respondent's need for employment counselling. Categories include:

- No employment problems because no employment, client not currently ready for employment
- Employment problems, employed
- Employability problems, unemployed

3.7.4 *Substance Use History*

Substance Use History was measured using the respondent's primary problem substance, age of first use of primary substance, days sober during pregnancy, interviewer's rating of the need for alcohol treatment and interviewer's rating of the need for drug treatment.

3.7.4.1 Primary Problem Substance

This variable was recoded to a seven categorical variable due to the small cell size in the original variable. Respondent's primary problem substance is recorded by the interviewer after a series of other questions related to respondent's substance use.

Categories include:

- Cocaine
- Alcohol
- Alcohol & Drug (dual)
- Cannabis
- Poly Drug (alcohol not a problem)

- Amphetamines
- Other (methadone, opiates/analgesics, sedatives/tranquillizers, hallucinogens, inhalants)

3.7.4.2 Age first used Primary Problem Substance

A new continuous variable was created for the age in which respondent used their primary problem substance. Primary problem substance was identified through a previous question and the age in which they first used that substance was taken from a list of variables that asked respondent's for the age they first used a wide range of substances.

3.7.4.3 Sober during Pregnancy

This is a continuous variable in which the interviewer records the respondent's answer to the question, "*Was there ever a period you were clean and sober during this last pregnancy?*" The longest number of days in a row in which respondent was sober is recorded.

3.7.4.4 Client's need for Alcohol Treatment

This was recoded to a dichotomous variable in which the interviewer recorded if the respondent currently needed or did not need alcohol treatment.

3.7.4.5 Client's need for Drug Treatment

This was recoded to a dichotomous variable in which the interviewer recorded if the respondent currently needed or did not need drug treatment.

3.7.5 Legal Status

Legal Status was measured using number of arrests, number of convictions, history of incarceration, probation/parole status and the interviewer's rating of the respondent's need for legal services.

3.7.5.1 Number of Arrests

This is a continuous variable in which the interviewer recorded the respondent's answer to the question, "*How many times in your life have you been arrested and charged with the following?*" Specifics offences are:

- Shoplifting/vandalism
- Parole/probation violation
- Drug charges
- Forgery
- Weapons offence
- Burglary/larceny/breaking & entering
- Robbery
- Assault
- Arson
- Rape
- Homicide/manslaughter
- Failure to appear
- Prostitution
- Contempt of court
- Other

This item includes only formal charges and not times when respondent was picked up and questioned. This question does not include juvenile charges unless respondent was tried as an adult.

3.7.5.2 Number of Convictions

This is a continuous variable in which the interviewer recorded the respondent's answer to the question, "*How many of these charges resulted in convictions?*" Convictions include fines, probation, suspended sentences, charges for probation/parole violations, as well as incarcerations.

3.7.5.3 Probation/Parole Status

This is a dichotomous variable in which the interviewer recorded the respondent's answer to the question, "*Are you on probation or parole?*"

3.7.5.4 History of Incarceration

This was recoded to a dichotomous variable which indicates if the respondent had ever been incarcerated in their lifetime. The original variable recorded number of total months incarcerated during respondent's lifetime.

3.7.5.5 Need for Legal Services

This was recoded to a dichotomous variable in which the interviewer recorded if the respondent currently needed or did not need legal services or counselling. Included in this variable is the need for legal services regarding civil problems.

3.7.6 Childhood History & Family Relationships

Childhood history and family relationships was measured using childhood foster care involvement, childhood physical abuse, childhood sexual abuse, conflict with family, current abuse and interviewer's rating for the need of family counselling.

3.7.6.1 Foster Care

This is a dichotomous variable in which the interviewer recorded the respondent's answer to the question, "*Were you ever in the foster care system?*"

3.7.6.2 Childhood Sexual Abuse

This is a categorical variable in which the interviewer recorded the respondent's answer to the question, "*As a child, were you ever sexually used or molested in any way besides rape?*" Categories include:

- No
- Yes, once or twice
- Repeated times

3.7.6.3 Childhood Physical Abuse

This is a categorical variable in which the interviewer recorded the respondent's answer to the question, "*As a child, were you ever hit or beaten?*" Categories include:

- No
- Yes, once or twice
- Repeated times

3.7.6.4 Conflict with Family

This is a continuous variable in which the interviewer recorded the respondent's answer to the question, "*How many days in the past 30 have you had serious conflicts with your family?*"

3.7.6.5 Current Abuse

This was recoded to a dichotomous variable in which the interviewer recorded the respondent's answer to the question, "*Are you currently in what you consider to be an abusive relationship with your partner.*" Included in an abusive relationship is physical abuse, psychological abuse, sexual abuse or a combination.

3.7.6.6 Need for Family and/or Social Counselling

This was recoded to a dichotomous variable in which the interviewer recorded if the respondent currently needed or did not need family and/or social counselling.

3.7.7 Psychiatric Status

Psychiatric status was measured using number of times a respondent was treated for psychological or emotional problems in a hospital or as an outpatient, total number of psychiatric symptoms in the past 30 days and interviewer's rating of the respondent's need for psychiatric treatment.

3.7.7.1 Times treated for psychological/emotional problems in a hospital

This is a continuous variable in which the interviewer recorded the respondent's answer to the question, *"How many times have you been treated for any psychological or emotional problems, in a hospital?"*

3.7.7.2 Times treated for psychological/emotional problems in a hospital

This is a continuous variable in which the interviewer recorded the respondent's answer to the question, *"How many times have you been treated for any psychological or emotional problems, as an outpatient?"*

3.7.7.3 Psychiatric Symptoms in past 30 days

Total number of psychiatric symptoms experienced in the past 30 days was calculated by adding up the total number of positive responses to the question, *"Have you ever had a significant period (that was not a direct result of drug/alcohol use) in the past 30 days which you have experienced"*

- Serious depression
- Serious anxiety or tension
- Hallucinations
- Trouble understanding/concentrating or remembering
- Trouble controlling violent behaviour
- Serious thoughts of suicide
- Attempted suicide
- Prescribed medication for any psychological/emotional problem

3.7.7.4 Need for psychiatric/psychological treatment

This was recoded to a dichotomous variable in which the interviewer recorded if the respondent currently needed or did not need psychiatric/psychological treatment.

3.7.8 Community Service Access

Community service access was measured by respondent's involvement with food banks, emergency housing, clothing/supplies and their family health care provider. All variables were recoded to a dichotomous variable.

3.7.8.1 Food Banks

This was recoded to a dichotomous variable in which the respondent answered *yes* or *no* to accessing food banks.

3.7.8.2 Emergency Housing

This was recoded to a dichotomous variable in which the respondent answered *yes* or *no* to accessing emergency housing (including shelters).

3.7.8.3 Clothing /Supplies

This was recoded to dichotomous variable in which the respondent answered *yes* or *no* to accessing clothing/supplies services.

3.7.8.4 Regular Family Health Care Provider or Clinic

This is a dichotomous variable in which respondent answered *yes* or *no* to accessing a regular family health care provider or clinic.

3.8 Measurement Quality of the ASI

To date, inter-rater reliability has not been assessed for the modified ASI for pregnant and postpartum women. The ASI is highly standardised in its interview format and process and all interviewers in this study were given extensive training in the use of the ASI and recording protocols. To ensure consistency, the agencies in this research used only a few highly trained interviewers during the ASI intake process. Due to this, confidence in inter-rater reliability is increased.

3.9 Ethical Considerations

The University of Calgary ethics review process was completed for the current study prior to data analysis. The University of Calgary Conjoint Faculties Research Ethic's Board's approval is attached (see Appendix A). Participation was required from program directors of each program, which was obtained through the original research study. Permission was then granted for this thesis research by First Steps, Edmonton and Parent Child Assistance Program, Calgary. All personal identifiers (e.g., name, address etc.) were removed from the ASI forms before they were given to the original research project. The ASI forms are stored in a locked office within the University of Calgary. The findings will be reported in group format in this report and no individual intake reports will be discussed.

Chapter Four: RESULTS

4.1 Demographic Characteristics of Sample

A total of 152 ASI intake interviews were analysed for this research. All respondents were women between the ages of 17 and 41 years with a mean age of 25.8 (SD = 5.21). The women had between 1 and 6 children with a mean of 2.7 children (SD = 1.37) and 52.1% had an open CPS file. The majority of women in the sample were Aboriginal, had never been married and had a mean of grade 9.7 education completed (SD = 1.61). Demographic findings are presented in Table 4-1.

Table 4-1
Demographic Characteristics of Sample

	% or M (SD)
Race	
Aboriginal	58.1
Non-Aboriginal	41.9
Marital Status	
Never Married	72.8
Married/Remarried	17.2
Divorced/Separated/Widowed	9.9
Open CPS file	
No	47.9
Yes	52.1
Age	25.8 (5.21)
No. of children	2.7 (1.37)
Education completed (grade)	9.7 (1.61)

4.2 Comparison of Women Based on Child Welfare Involvement

4.2.1 Demographic Characteristics

Women with an open CPS file were not significantly different from women without an open CPS file on all demographic variables, except for number of children.

Women with an open CPS file had significantly more children ($M=3.02$, $SD=1.39$) than women without an open CPS file ($M= 2.40$, $SD=1.30$), $t(134) = -2.68$, $p < .01$. There were no significant differences in level of education, age or marital status between the two groups. Although there were substantial numbers of Aboriginal women and Non-Aboriginal women in the sample, there was no relationship between being Aboriginal and having an open CPS file (see Table 4-2). Demographic findings are presented in Table 4-2 and 4-3.

Table 4-2

Demographic Characteristics of Women by Child Welfare Involvement :Chi Square

	Open CPS File ($n = 75$) %	No CPS File ($n = 69$) %	χ^2
Race			3.04
Aboriginal	65.3	50.8	
Non-Aboriginal	34.7	49.2	
Marital Status			1.20
Never Married	71.6	71.0	
Divorced/Separated/ Widowed	8.1	13.0	
Married/Remarried	20.3	15.9	

Table 4-3

Demographic Characteristics of Women by Child Welfare Involvement: T-Tests

	Open CPS File		No CPS File		df	t
	M	SD	M	SD		
Age	25.99	5.18	26.00	5.40	138	0.015
Education	9.62	1.6	9.80	1.68	141	0.642
No. of Children	3.03	1.39	2.40	1.30	134	-2.68**

** $p < .01$

4.2.2 Health Status of Women based on Child Welfare Involvement

There were significant differences in health status between CPS and non CPS groups on two of four health status variables. Significantly more women with an open CPS file reported having chronic medical problems that interfered with their lives and a relationship was found between being Hepatitis C positive and women's child welfare involvement. Although most women with and without an open CPS file were tested for Hepatitis B and HIV/AIDS, the vast majority of women tested negative for these diseases. Findings show 97.7% of the women tested negative for Hepatitis B and 95.7% tested negative for HIV/AIDS. No significance emerged in the interviewer's rating of the client's need for medical treatment. Health status findings are presented in Table 4-4.

Table 4-4

Health Status of Women by Child Welfare Involvement

	Open CPS File (<u>n</u> = 75) %	No CPS File (<u>n</u> = 69) %	χ^2
Chronic Medical Problems			3.97*
No	62.5	77.9	
Yes	37.5	22.1	
Hepatitis C			6.97**
Negative	60.9	82.0	
Positive	39.1	18.0	
Need for medical treatment			1.83
No need for treatment	61.8	72.7	
Need for treatment	38.2	27.3	

* $p < .05$

** $p < .01$

4.2.3 Economic Stability of Women based on Child Welfare Involvement

There were no significant differences in economic stability between women with and without an open CPS file on all economic variables. The majority of women in both

groups were unemployed, did not have someone contributing to their support, and had never been married. Most women lived in a permanent or stable living situation. The interviewers felt the women in both CPS and non CPS groups did not have employment problems, as most were not ready for employment. Women with an open CPS file did not differ in the number of people who depended on them for support ($M = .77$, $SD = .93$) when compared to women without an open CPS file ($M = 1.10$, $SD = 1.06$), $t(131) = 1.92$, $p = ns$. Economic stability findings are presented in Table 4-5.

Table 4-5Economic Stability of Women by Child Welfare Involvement

	Open CPS File ($n = 75$) %	No CPS File ($n = 69$) %	χ^2
Employment Pattern, last 3 years			0.76
Unemployed	81.3	75.4	
Employed	18.7	24.6	
Someone contributing to support			0.40
No	56.0	50.7	
Yes	44.0	49.3	
Economic Dependents			3.26
0	48.6	35.6	
1-2	45.9	52.5	
3 or more	5.4	11.9	
Housing Situation			4.21
Permanent/Stable	53.7	56.3	
Living with friends/relatives	20.9	28.1	
Transient (shelter/drug free housing)	16.4	14.1	
Other	9.0	1.6	
Need for employment counselling			5.21
No problems, not ready to work	57.7	63.1	
Employability problems	39.4	26.2	
No problems, working	2.8	10.8	

4.2.4 Substance Use History of Women based on Child Welfare Involvement

There were no significant differences in substance use history between women with and without an open CPS file. Both groups of women identified cocaine followed by alcohol as their primary problem substance. No significant difference emerged in the interviewer's rating of the client's need for alcohol and drug treatment across the two comparative groups. These substance use history findings are presented in Table 4-6.

There were no significant differences in the mean age when women first used their primary problem substance. Women with an open CPS file had a mean age of 16.09 (SD = 4.91) when they first used their primary problem substance and women without an open CPS file had a mean age of 16.69 (SD = 5.56), $t(111) = .598, p = ns$. Women without an open CPS file ($M = 97.28, SD = 78.68$) did not differ in number of days sober during their pregnancy when compared with women with an open CPS file ($M = 84.50, SD = 69.39$), $t(135) = 1.01, p = ns$.

Table 4-6**Substance Use History of Women by Child Welfare Involvement**

	Open CPS File (<u>n</u> = 75) %	No CPS File (<u>n</u> = 69) %	χ^2
Primary Problem Substance			3.30
Cocaine	41.3	42.6	
Alcohol	24.0	26.5	
Alcohol & Drug (dual)	13.3	11.8	
Cannabis	5.3	2.9	
Poly drug (alcohol not a problem)	6.7	5.9	
Amphetamines	2.7	7.4	
Other	6.7	2.9	
Need for Alcohol treatment			0.63
No need for treatment	30.4	36.9	
Need for treatment	69.6	63.1	
Need for Drug treatment			0.01
No need for treatment	11.6	12.1	
Need for treatment	88.4	87.9	

4.2.5 Legal Status of Women based on Child Welfare Involvement

Women with an open CPS file were not significantly different from women without an open CPS file on all legal variables. Number of arrests, convictions, history of incarceration and probation/parole status did not significantly differ between the groups. No significance emerged in the interviewer's rating of the client's need for legal services. Legal status results are presented in Table 4-7 and 4-8.

Table 4-7Legal Status of Women by Child Welfare Involvement: Chi Square

	Open CPS File (<u>n</u> = 75) %	No CPS File (<u>n</u> = 69) %	χ^2
Probation/Parole			0.81
No	73.3	79.7	
Yes	26.7	20.3	
Incarcerated at anytime			0.93
No	35.3	43.5	
Yes	64.7	56.5	
Need for legal services			2.73
No need for service	55.9	69.7	
Need for service	44.1	30.3	

Table 4-8Legal Status of Women by Child Welfare Involvement: T-Test

	Open CPS File		No CPS File		<u>df</u>	<u>t</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
No. of arrests/charges	9.91	12.05	8.23	10.73	133	-.857
No. of convictions	5.20	7.80	3.08	4.33	101	-1.89

4.2.6 Childhood History & Family Relationships of Women based on Child Welfare Involvement

Significant differences between groups occurred across two of the seven childhood history and family relationship variables. Significant differences between the two comparative groups emerged in the areas of childhood sexual abuse and need for family/social counselling. There was a significant relationship found between repeated sexual abuse and having an open CPS file. Also found, was a significant relationship

between interviewer identified need for family/social counseling and women having an open CPS file. These findings are presented in Table 4-9.

Significant differences did not emerge between the groups for childhood foster care involvement, childhood physical abuse, current abusive relationship with a partner, or number of days in conflict with family members. The majority of women in both groups had been in foster care as children, experienced repeated childhood physical abuse and were not currently in an abusive relationship (see Table 4-9). Women with an open CPS file reported having serious conflict with their families, in the past 30 days, for a mean number of 3.26 days ($SD = 7.91$) and women without an open CPS file reported being in conflict for a mean number of 3.03 days ($SD = 6.96$), $t(140) = -0.19$, $p = ns$.

Table 4-9
Childhood History & Family Relationships of Women by Child Welfare Involvement

	Open CPS File ($n = 75$) %	No CPS File ($n = 69$) %	χ^2
Childhood Sexual Abuse			8.71*
No	28.8	42.2	
Yes, once or twice	15.1	26.6	
Repeated times	56.2	31.3	
Childhood Physical Abuse			0.10
No	38.4	40.6	
Yes, once or twice	8.2	7.2	
Repeated times	53.4	52.2	
Foster Care System as a child			0.06
No	47.3	49.3	
Yes	52.7	50.7	
Currently in an abusive relationship			0.62
No	78.4	72.6	
Yes	21.6	27.4	
Need for family/social counselling			8.55**
No need for counselling	7.5	26.6	
Need for counselling	92.5	73.4	

* $p < .05$.

** $p < .01$.

4.2.7 Psychiatric Status of Women based on Child Welfare Involvement

There were no significant differences in psychiatric variables between women with and without an open CPS file, except for need for psychiatric/psychological treatment. Women with an open CPS file had a greater need for psychiatric/psychological treatment. Differences did not emerge for number of times women were treated for psychological or emotional problems in a hospital or as an outpatient, or total number of psychiatric symptoms in the past 30 days. Results are shown in Table 4-10 and 4-11.

Table 4-10
Psychiatric Status of Women by Child Welfare Involvement: T-Test

	Open CPS File		No CPS File		df	t
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
No. of times treated in a hospital	0.69	1.40	0.51	1.46	132	-0.726
No. of times treated as an outpatient	2.30	4.96	1.68	4.35	112	-0.700
No. of psychiatric symptoms, 30 days	2.04	1.61	2.09	1.90	142	0.161

Table 4-11
Psychiatric Status of Women by Child Welfare Involvement: Chi Square

	Open CPS File (<u>n</u> = 75) %	No CPS File (<u>n</u> = 69) %	χ^2
Need for psychiatric treatment			4.82*
No need for treatment	25.7	43.8	
Need for treatment	74.3	56.3	

* $p < .05$.

4.2.8 Community Service Access for Women based on Child Welfare Involvement

Accessing food banks and emergency housing were the only community service variables in which women with an open CPS file significantly differed from women without an open CPS file. There was a significant relationship between women accessing food banks and emergency housing and having an open CPS file. No significance emerged for accessing services related to clothing and supplies or family health care. Results for accessing community services are presented in Table 4-12.

Table 4-12
Community Service Access for Women by Child Welfare Involvement

	Open CPS File (<u>n</u> = 75) %	No CPS File (<u>n</u> = 69) %	χ^2
Food Banks			10.84***
No	8.7	31.7	
Yes	91.3	68.3	
Emergency Housing			4.26*
No	55.6	74.1	
Yes	44.4	25.9	
Clothing & Supplies			1.40
No	22.2	31.7	
Yes	77.8	68.3	
Family Healthcare Provider			2.30
No	19.4	10.3	
Yes	80.6	89.7	

* $p < .05$.

*** $p < .001$.

Chapter Five: DISCUSSION

5.1 Overview

This research set out to determine the differences in characteristics and circumstances between women who have, or are at risk of having, a child with FASD and *are involved* with child welfare and women who have, or are at risk of having, a child with FASD and *are not involved* with child welfare. Based on information gathered on the ASI, no significant differences were found between comparative groups in the domains of economic stability, substance use history and legal status. Differences emerged in the domains of demographics, health status, childhood history and family relationships, psychiatric status and community service access.

5.2 Domains of the ASI

5.2.1 Demographic Characteristics

When women with and without an open CPS file were compared, findings show there were significant group differences on only one of the five demographic variables. Age, race, marital status and education were not significantly different between the two groups. While this generally confirms other research (Hohman et al., 2001), there are some specific differences from past findings. In past studies, mothers with substance abuse issues who were involved with child welfare were younger than women who were not involved with child welfare (Grella et al., 2006; Shillington et al., 2001). The difference in findings may be explained by the difference in ages between the samples of the studies. That is, in this thesis research the women in the sample were much younger as a cohort than the women in the other studies.

Differences in marital status and education levels vary between this study and past research. While this research found no difference in marital status and education levels between the two groups, Grella et al. (2006) and Shillington et al. (2001) found that child welfare involvement was associated with being younger and unmarried. These differences in findings may be due to the young age of the sample in this thesis research. As would be expected of a young population of women, the majority of the sample reported never being married. Furthermore, not only was the sample primarily young and never married but on the whole the women had lower levels of education than in past research. Given that largely young, unmarried, and uneducated women were in the Alberta sample, differences between this and past related studies would be expected.

Findings from this research show that women with an open CPS file had significantly more children than women without an open CPS file, which is consistent with related research (Grella et al., 2006; Shillington et al., 2001). Grella et al. (2006) found that having a greater number of children increases the likelihood of involvement with child welfare for substance abusing women. They found that an increase of 50% for child welfare involvement occurred per child (Grella et al. 2006). This is substantiated by other research that shows having more children places women with substance abuse issues at risk for having a child placed out of the home (Marcenko et al., 1997; Nair et al., 1997) and larger family units increases the likelihood of detection by CPS (Sedlak, 1997).

The consistency of findings across this research and past studies, indicate that women involved with child welfare may require specific services and programming unique to their larger family unit. The mothers in this study are under a great deal of

stress due to poverty, mental health issues and other circumstances that compromise their families' quality of life. These issues may be intensified when a mother has to care for a greater number of children. Parenting many children in a poor social and economic climate may present challenges to these mothers (e.g. need for more food, clothing and supplies, increased time demands as a parent etc.); challenges that may not be issues for mothers parenting fewer children under the same socioeconomic circumstances. The unique needs of mothers caring for larger families should be considered when designing programs and services for women who are involved, or are at risk of involvement, with child welfare. Services that strengthen a mother's ability to parent, such as parenting classes and child care services need to be provided in tandem with services that can address issues limiting parenting capacity (e.g. poverty, parental illness, psychiatric issues, reoccurring trauma from childhood sexual abuse etc.).

5.2.2 Health Status

When women with and without an open CPS file were compared, findings showed there were significant group differences across two of the four health variables. Although the literature has linked poor health with the lives of pregnant and parenting women with substance abuse issues (Conners et al., 2004) and birth mothers of children with FAS (Abel, 1998), no prior studies have considered health status of mothers with child welfare involvement in situations of substance abuse or FASD.

Overall, a large proportion of the young women in this study were assessed as having chronic medical problems. The findings of this study suggest that there is a relationship between having chronic health problems and child welfare involvement. A relationship between being Hepatitis C positive and involvement with child welfare was

also found. However, no significant differences were found in the number of times women had been hospitalized.

These findings suggest physical health may affect a mother's ability to adequately provide for her children given the day to day circumstances she faces with her health issues. Physical and emotional symptoms of Hepatitis C and other chronic illnesses may interfere with parenting ability. Fatigue, irritability, nausea, anorexia, muscle pains, headaches and abdominal pains are common symptoms experienced by people with Hepatitis C (Badi et al., 2004; Wee, Cheung, & Fong, 2005). Chronic liver diseases, such as Hepatitis C, have a major impact on quality of life and can cause people with the disease significant distress (Poupon, Chretien, Chazouillere, Poupon & Chwalo, 2004; Van Der Placc, Hansen, Boer et al., 2003; Zandhi, Adib-Hajbasher, Memarian, Hejhad, & Alavian, 2005). These symptoms along with feelings of shame and rejection about Hepatitis C can compromise social relations and interfere with daily functions (Strauss & Teixeira, 2006). Gender plays a role in quality of life for those living with Hepatitis C as women are more likely to report a lower quality of life than men which may be due to the social problems associated with the disease (Gifford, O'Brien, Bammer, Banwell, & Stooze, 2003). Under these conditions, providing for the needs of a child may become exceedingly difficult and may be exacerbated by issues of poverty and other factors that put stress on these mother's lives.

Poor parental physical health has been associated with child maltreatment (Thoburn, Wilding & Watson, 2000) and chronic health problems have been found in one third of families involved with child welfare in Britain (Aldgate & Statham, 2001). However, the connection between parental physical health and child welfare has received

minimal attention in the literature. Parental physical health may be linked to child welfare involvement as poor health can lead to high levels of stress, and this in itself is associated with child maltreatment and neglect (Connell-Carrick, 2006; Lesnik-Oberstein, 1995). Children whose parents have chronic illnesses have poorer child functioning compared to children from families whose parents are not ill (Anderson & Hammen, 1993; Hammen, et al., 1987). Therefore, chronic illness may not only affect a mother's ability to care for her child but the affects of the illness on a child's functioning may be grounds for child welfare investigations or involvement.

Health and well-being can affect a mother's energy level, coping mechanisms and stress level which in turn may affect her ability to meet her child's physical, emotional and developmental needs. Not only does poor physical health present challenges for parenting but it also presents challenges in creating responsive programming and practices for these women involved in child welfare. Services must consider a mother's physical health along with the other aspects of her life that put her at risk of having her family involved with child welfare. A comprehensive and integrated system for this population of women could include ways to reduce barriers to appropriate healthcare and increase access to non-judgemental providers who can look at the contextual issues surrounding a woman's health and how it may be linked with child welfare involvement.

5.2.3 Economic Stability

The women in this study can be characterized as having weak economic stability; however, no significant economic differences between women with and without an open CPS file were found. The two groups of women were comparable in their employment status. This is not consistent with past research which found women with an open CPS

file to have higher rates of unemployment (Grella et al., 2006; Shillington et al., 2001). One should note that the percentage of difference in employment status between women who were and were not involved with CPS was equivalent in this analysis to prior studies. However, the prior studies had the benefit of larger samples and thereby had adequate statistical power to identify a modest level of difference as significant.

The findings show that women with and without an open CPS file were comparable in the number of people who depended on them for economic support. This is not consistent with Grella et al. (2006), who found that women with an open CPS file were less likely to have others who depended upon them for economic support. However, as was the situation with employment status, the percentage of difference in number of dependents between women who were and were not involved with CPS was equivalent in this analysis to Grella et al. (2006). Again, Grella et al. (2006) had the advantage of a substantially larger sample and because of this had adequate statistical power to identify differences in number of dependents, as were found in this thesis study, as statistically significant.

Women with and without an open CPS file were comparable in their dependency upon others for economic support. This differs with Grella et al. (2006) who found that women with an open CPS file were more likely to be dependent upon others for the majority of their economic support. Contradictory findings may be explained by the differences in marital status between the samples of the studies. Grella et al.'s (2006) study had a larger percentage of women who were either married or divorced than this research's sample, which was predominately a sample that had never been married. This would increase the likelihood of the women in Grella et al.'s (2006) study to have the

opportunity for support either from a current spouse or spousal support following a divorce.

In the current study and Grella et al.'s (2006) research, women with and without an open CPS file did not differ in their housing situation, which contrasts with Hohman et al. (2003) who found women involved with CPS were more likely to have a permanent residence. Hohman et al. (2003) sampled only pregnant women seeking alcohol and drug treatment and this may account for the difference in housing findings between the studies.

Interestingly, there were no economic differences between the two groups even though research has drawn a relationship between child welfare involvement and poverty (Barth, Wildfire, & Green; Leschied, Chiodo, Whitehead & Hurley, 2006; Palmer, Maiter & Manji, 2006). The non significant findings between the two comparative groups may indicate that the variables on the ASI that measure economic stability do not present a clear representation of poverty levels. As there is no clear indicator of income level, economic stability may be better analysed through the community service access domain, specifically questions relating to a mother's need for food banks, clothing and emergency housing. Differences in community service access between the two comparative groups and its association with poverty will be discussed in a following section.

5.2.4 Substance Use History

There is a high prevalence of substance abuse among families coming into contact with child welfare, nevertheless, the current study found no significant differences in all substance use history variables in the comparison of women with and without an open CPS file. Differences were not found between the two groups in regards to women's primary problem substance. This finding is not consistent with other research which

found differences between the two groups in women's problem substance (Grella et al., 2006; Hohman et al., 2003; Shillington et al., 2001). Differences in findings may be explained by the varying geographical locales and types of programs in which the samples were involved. That is, all three past studies' samples were drawn from public alcohol and drug treatment facilities in the state of California. One would expect the drug and alcohol profile to be different between a treatment facility and a community based prevention program, like the ones participating in this thesis research. A wider range of drugs including methamphetamine, heroin and crack were frequently cited as primary problem substances of women in the three past studies. In this study these drugs were only minimally mentioned and the primary problem substances cited were predominately alcohol, cocaine or dual addictions. The differences in primary substance use may also be attributed to the varying drug use trends in the geographical locations of Alberta and California.

The age in which women first used their primary problem substance was not found to be significantly different when the two groups of women were compared, which is supported by related research (Shillington et al., 2001). This finding contradicts Grella et al. (2006) who found women with an open CPS file were younger the first time they used their primary problem substance. Although it should be noted that the difference in age found by Grella et al. (2006) is less than one percent. Because of a large sample size, the study had adequate statistical power to identify small differences as significant. Number of days sober during pregnancy produced no significant findings. To date, this variable has not been explored by other researchers.

Although substance abuse plays a foundational role in women's entry into FASD prevention programs, there were no differences between the two groups in all substance use history variables. The current study's findings support the claim that to be successful, programs and services should not focus on substance abuse alone but rather work with families to address the contextual issues, such as poverty, surrounding the substance abuse (Grant, Ernst, Pagalilauan, Streissguth, 2003; Suchman et al., 2006).

5.2.5 Legal Status

The women in the sample had high levels of involvement with the legal system which is consistent with the literature (Connors et al., 2004; Haller, Knisely, Dawson & Schnoll, 1993; Howell & Chasnoff, 1999). However, when women were compared on their past involvement with the legal system, no significant differences between women with and without an open CPS file were found. The two groups of women were comparable in number of arrests, number of convictions, incarceration history, and parole/probation status.

Lack of differences in number of arrests, convictions and incarceration history between the two comparative groups in this study is supported by Grella et al. (2006). Whereas, the current research found no difference in probation/parole status between the two groups, Grella et al. (2006) found that women involved with child welfare had a lower rate of being on probation/parole. The difference in findings between this research and Grella et al. (2006) may reflect the varying rates of probation status and route of entry into the different programs. Almost half of the mothers in Grella et al.'s (2006) study were on probation/parole with the most common referring agent being the criminal justice system. Whereas, only one-fifth of the women in the current study were on

probation/parole with almost all of women stating they were not referred by the criminal justice system.

5.2.6 Childhood History and Family Relationships

Women who have, or are at risk of having, a child with FASD have been shown to have complex family and social relationships as well as negative childhood histories (Astley et al., 2000; Conners et al., 2004; Grant et al., 2005; Kvigne et al., 1998). The lives of women in the current study were also characterized by having negative childhoods and family relationships. When women with and without an open CPS file were compared, results showed there were significant differences between these groups across two of six family variables. A relationship between child welfare involvement and the need for family counselling was found and will be discussed in section 5.2.9.

This thesis research found a relationship between women being repeatedly sexually abused in childhood and child welfare involvement. Childhood physical abuse and living in a current abusive relationship were equivalent between the two groups. To date, Grella et al. (2006) is the only study to compare physical and sexual abuse between mothers with substance abuse issues based on their child welfare involvement. Their findings are not consistent with these of this research. Grella et al. (2006) found no significant differences in lifetime sexual abuse but did find women with an open CPS file to have higher rates of lifetime physical abuse. Differences in findings between the two studies may be due to the variables analysed. Grella et al. (2006) used *lifetime* abuse variables whereas this study analysed abuse occurring separately in *childhood* and *adulthood*. Foster care involvement, and total number of days women were in conflict

with family members produced no significant differences; to date no research has looked at these particular variables.

A considerable body of research demonstrates that childhood sexual abuse (CSA) is associated with women's later substance abuse (Bailey & McClosky, 2005; Kilpatrick, 2000; Luster & Small, 1997; Marcenko et al., 2000; Saunder, Kilpatrick, Hanson, Resnick & Walker, 1999; Wilsnack, Vogeltanz, Klassen & Harris, 1997). Victims of childhood sexual abuse turn to substances as a way to self-medicate for emotional pain attributed to sexual abuse (Hawek, Janchill & Delan, 2000; Kilpatrick et al., 2003). Along with substance abuse a host of other problems arise for victims of CSA, including poor psychological functioning (Roberts, O'Connor & Golding, 2003), hostility and aggression (Kendall-Tackett, Williams & Finkelhor, 1993), difficulty in intimate relationships (Hill et al., 2001), and disassociation (Chu & Dill, 1990). The women with an open CPS file in this study who have been repeatedly sexually abused may experience elevated levels of poor adult functioning as a consequence of CSA, and this appears to be more severe where the abuse continues for longer periods (Trickett, Noll, Reiffman & Putman, 1997).

As the findings in this study demonstrate, the combination of childhood sexual abuse and substance abuse can affect family life and is associated with mother's involvement with child welfare. Mothers with substance abuse issues who have been repeatedly sexually abused in childhood have a greater likelihood of having a child in foster care or placed with others (Regan et al., 1987). This may be attributed to their inability to resolve the conflicts and feelings resulting from CSA which in turn can lead to the disruption in ability of a mother to parent her child. The long term correlates of

CSA for the mothers in this study may impact their interpersonal relations with significant individuals in their life, such as their children (DiLillo & Damashek, 2003). Mothers who are victims of childhood sexual abuse are at increased risk of neglecting their children (Zuravin & DiBlasio, 1992), have reduced confidence in parenting (Banyard, 1997; Roberts, Connor, Dunn & Golding, 2004), are more likely to use physical punishment (Banyard, 1997; Hall, Sachs & Rayens, 1998), avoid invoking parental authority (Ruscio, 2001) and rely heavily on their children for emotional support which leads to role reversal behaviours (Alexander, Teti & Anderson, 2000; Burkett, 1991).

Childhood sexual abuse history is associated with problems in parenting and adult functioning. Women who have an open CPS file may benefit from services that help them resolve issues related to sexual abuse, in conjunction with addressing other life circumstances. Addressing sexual abuse, family issues, and working with women to build their parenting capacity may help these women make the necessary changes in their families' lives. Supporting high-risk women to attend to the feelings related to past sexual abuse may work to prevent child welfare involvement.

5.2.7 Psychiatric Status

Women who have, or are at risk of having, a substance exposed child often have mental health issues (Conners et al., 2004; Haller et al., 1993; Meschke et al., 2003) and among mothers with substance abuse issues, mental health issues are a major predictor of out of home placement for children (Nair et al., 1997; Suchman et al., 2006). The women in the current study had psychological and emotional issues. When women with and without an open CPS file were compared, one of the four psychiatric variables was found

to be significant. Differences did not emerge for number of times women were treated for psychological problems in a hospital, number of times women were treated for psychological problems as an outpatient or number of psychiatric symptoms in the past 30 days, which is consistent with related research (Grella et al., 2006). Interestingly, although there were no differences in past psychiatric treatment in groups with and without CPS involvement, the two groups were seen to be different in their current need for psychiatric/psychological treatment. The relationship between child welfare involvement and women's need for psychiatric treatment will be discussed in section 5.2.9.

5.2.8 Community Service Access

The women in this study had high levels of accessing community services which is consistent with the literature (Marcenko et al., 1994). When women with and without an open CPS file were compared on their use of community services, significant differences were found across two of the four variables. A relationship was found between child welfare involvement and women's need for food banks and emergency housing. No differences were found in the women's use of services for clothing and supplies and regularly visiting a family healthcare provider. Accessing food banks and emergency housing may be the best indicator of poverty in this study as there is no variable in the modified ASI that looks specifically at income level. No previous studies have examined the need for women's community services and child welfare involvement in situations of substance abuse or FASD.

The women with an open CPS file had high levels of accessing food banks which in of itself puts them at risk for having poor physical, psychological and sociofamilial

health (Hamelin, Habicht, Beaudry, 2005). People who experience food insecurity and access food banks have lower nutrient intake (Rose, 1999; Tarasuk 2001), are less resistant to infections and have higher incidences of long-standing health conditions, illnesses or disabilities (Tarasuk & Beaton, 1999). This is a cause for concern as Able & Hannigan (1995) suggest under-nutrition is a factor in FASD, as optimal maternal health and fetal growth require a robust nutrient pool. Alcohol reduces nutrient availability to mother and fetus as it inhibits nutrient absorption, impairs placental blood flow of nutrients, and alcohol's toxic effects are exacerbated when diets are low in important nutrients (Abel & Hannigan, 1995). Fetal health of the pregnant women in this Alberta study may be compromised not only due to the substance abuse but also by the lack of nutrients resulting from food insecurity and accessing food banks.

The mental health of the women involved with child welfare who access food banks may be impacted as they do not receive adequate nutrition and are burdened by not being able to purchase food for their families (Hamelin et al., 2005; Power, 1999; Tarasuk & Beaton, 1999; Wellman, Weddle, Kranz & Brain, 1997). The women in this study who access food banks may feel stressed, excluded, powerless, may lack concentration and function at a low capacity at work or home, and may experience disruptions in household dynamics as these feelings and experiences are frequent among food bank users (Hamelin et al., 2005). This could interfere with a mother's ability to adequately care for herself and her child especially when the complex array of contextual factors contributing to substance abuse is added to the equation.

The relationship between poverty and child welfare involvement has long been recognised (Barth, Wildfire, & Green; Leschied, Chiodo, Whitehead & Hurley, 2006;

Palmer, Maiter & Manji, 2006) and more recently Canadian provinces are acknowledging the relationship of increased poverty rates and increased demand for child welfare services (Rivers, Trocmé, Goodman & Marwah, 2002). This association may be due to the inability of a parent to meet basic needs such as housing and food which creates instability that leads to stress on a parent and results in neglect or maltreatment of a child. Furthermore, intensifying this issue is poverty's relationship to single parenthood and experiences of violence (Leschied et al., 2006). The elimination of poverty would have a major impact on child welfare involvement (Barth et al., 2006) through both broad structural changes (e.g. subsidized quality day care, guaranteed annual income, tax benefits etc.) and services that assist individuals out of poverty (Leschied et al., 2006). Services and programmes for women with substance abuse issues who are involved with child welfare need to consider the economic deprivation that may be affecting these mothers and contributing to their involvement with child welfare.

5.2.9 Current Need for Treatment & Services

In each domain, the two groups of women were compared on their current need for services. Findings show there were no significant differences between groups in their need for medical treatment, legal services, employment counselling, and substance abuse treatment. However, a relationship was found between child welfare involvement and women's need for family counselling and psychiatric treatment. To date, no prior studies have considered a mother's need for services, in these specific domains, in situations of child welfare involvement and substance abuse.

Women with an open CPS file had a greater need for family counselling. Service providers helping pregnant and parenting women who have substance abuse issues must

work with mothers to identify their need for family counselling. Family counselling would encourage mothers to resolve past and present issues that interfere with optimum parenting and put them at risk for child welfare involvement. These may include issues relating to domestic violence and relationship problems with partners, family members and their children. Counselling, in combination with other services, may help these highly stressed mothers make the necessary changes in their lives to keep their family intact.

The women known to CPS appeared to have significantly greater need for psychiatric/psychological treatment. Substance abuse services and mental health services are usually organised independently from each other and are not designed to meet the needs of pregnant and parenting women (Grella, 1996). Pregnant and parenting women who have co-occurring substance abuse and psychiatric disorders face particular problems related to service delivery because of their complex and multiple needs (e.g. socioeconomic status, social stigma, victimization, etc.) (Grella, 1996). These problems may be magnified if a woman is also involved with child welfare. Women in substance abuse recovery who have psychiatric disorders and are involved with child welfare may find negotiating three service systems arduous because of their range of needs (Grella, 1996). Service providers and policy makers need to consider an integrated service delivery model to better respond to the needs of pregnant and parenting women who not only have co-occurring addiction and psychiatric disorders but also suffer a range of other issues, such as poverty and childhood trauma, that affect parenting capacity and put them at risk of child welfare involvement.

5.3 Overview of Findings

This research found that child welfare involvement was related to larger family units, past history of childhood sexual abuse, poor health and women's need for food banks and emergency housing. Women involved with child welfare also had a greater need for family counselling and psychiatric treatment than women who were not involved with child welfare. These findings demonstrate that the factors affecting the lives of mothers involved in this study are multi-faceted and interconnected and must be regarded in this way if programs and policies are to be responsive to these women.

5.4 Study Limitations

The findings described above must be considered within this study's limitations in sample and instrumentation. The sample was non-random and represented women who found their way into specialised prevention programs. The women in the sample were young, uneducated, low-income, not married and almost half of the women were Aboriginal. These results are not readily generalizable to women across a range of socio-economic status who have, or are at risk of having, a child with FASD. As well, due to the history of oppression and the state of Canadian Aboriginal people, differences in such key elements as poverty, low levels of education, sexual abuse and pressing need for psychiatric treatment, may not be representative of all populations of women who have, or are at risk of having, a child with FASD.

A further important limitation is the lack of a clear and direct indicator of income level which restricted the ability to determine a relationship between socio-economic status and child welfare involvement. The variables used to measure economic stability were indirect indicators and were unable to allow the direct determination of the

important relationship between poverty and child welfare involvement that has been shown in past research.

The modified ASI, used in this study, does not explicitly ask if women are pregnant or postpartum. This variable would have led to a deeper understanding of the women in the sample and would have allowed the researcher to further analyse the CPS and non-CPS groups based on their pregnancy or postpartum status. By way of entry into the program, it is known that these women were at risk of giving birth to a child with FASD. However, it is not known if they were pregnant, postpartum, had already given birth to a child with FASD and therefore considered at risk of having a subsequent child exposed to alcohol, or were of child bearing age with a history of drug and alcohol abuse. The absence of delineation between groups of women, limited the understanding of prenatal substance abuse among these women. Many of the substance abuse variables were directly related to current pregnancy and there was a high percentage of missing cases. This is because women could have either not been pregnant or were in their first trimester of pregnancy and therefore questions relating to second and third trimester were not relevant.

A third limitation to the instrumentation of this study is the lack of a question regarding the birth of a child who has FASD. The women in this study all had children, although it is unknown if these children had FASD or were exposed in utero to alcohol or drugs. This study was unable to identify the occurrence of FASD among the children of women in the study, and therefore this restricted the ability to determine the direct relationship between having a child with FASD and child welfare involvement.

A final limitation of this research is that women's past histories, such as medical hospitalisations, number of arrests and convictions and psychiatric history are based on memory and reporting of women. This could result in erroneous reporting and inaccurate data. More rigorous research would have access to women's medical, psychiatric and legal records to confirm self-report information.

5.5 Study Strengths

Very few studies to date have examined child welfare involvement in situations of FASD or prenatal substance abuse. This study builds on the sparse literature that has examined this important issue. Knowing the risk factors for child welfare involvement for pregnant, postpartum and parenting women who abuse substances is vitally important to creating responsive programs based on mothers' and families' needs.

This study not only provides empirical evidence of the factors associated with child welfare involvement but is also the only study to date to explore the topic from a Canadian context. This will enable service providers and researchers to further understand the issue from a Canadian perspective and respond to mothers and families appropriately.

5.6 Implications for Practice

Findings of this study may be interpreted within the context of Family Centred Care (FCC) theory. Family centred services and practices can provide the foundation to effectively respond to the barriers, array of service needs and complex life circumstances these families face. FCC deems the family as the unit of intervention and recognizes that by strengthening and supporting the unit, and not just the child, the chance of making a significant impact upon all family members is increased (Dunst, Trivette & Deal, 1994).

The following section argues that a continuum of family centred services and practices, in both community and institutional settings may prevent involvement with child welfare and provide women who are involved with child welfare with the support and services that meet their family's needs.

5.6.1 Responsive Programs and Practices

5.6.1.1 Addressing Unique Needs

Findings from this research show both groups of women share many similar life circumstances, but women with an open CPS file have needs that are unique from women who are not involved with CPS. A relationship was found between women's child welfare involvement and larger family units, a history of mothers' childhood sexual abuse, mothers' poor health and women's need for food banks and emergency housing. Women involved with child welfare also were assessed as having a greater need for family counselling and psychiatric treatment than women who were not involved with child welfare. When taken together, the results from this study show these women's needs extend far beyond substance abuse alone and require support that addresses the issues surrounding their family's lives.

Family Centred Care theory advocates for providers and services to be responsive to a family's unique needs and delivered in a coordinate manner (Trute, 2007) which under these circumstances includes, but is not limited to, the areas of: child welfare, health, mental health, substance abuse treatment, counselling, and income security. If services and programs offer high-risk women a way to address the array of complex needs, in a family-centred way, this may prevent the involvement of child welfare altogether. As Dunst & Trivette (1994) state, " This requires a shift away from prescribed

solution to family problems and concerns, and expecting families to adhere to such prescriptions, toward intervention practices that respond to what families consider the resources needed for normal community life” (p. 43).

5.6.1.2 Service Co-ordination, Collaboration & a Continuum of Family Centred Services

Collaboration and service co-ordination among human service sectors is instrumental in family centred practice and is required for the families in this study who are connected or need to be connected to an expansive network of services and institutions. An integrated co-ordinated system would include, a network supporting mothers to address their substance abuse, chronic health needs, past sexual abuse, and psychiatric issues. The network would also address issues related to alleviating individual poverty so families could become less reliant on food banks and emergency housing. The overall effectiveness of the services to these families does not depend on a single part of this network but rather on how well the whole is woven together (Adams & Nelson, 1995). Providers supporting families must work effectively and collaboratively with other resources to ensure families are receiving appropriate services that meet their unique needs, needs defined by the families themselves.

Collaboration and service coordination between child welfare and the substance abuse treatment system, which traditionally function as two distinct systems, is recommended (Choi & Ryan, 2006; Clark, 2001; Marsh & Cao, 2005; McAlpine, Marshall & Doran, 2001). Not only would the women participating in this study benefit from greater coordination between the child welfare and substance abuse treatment system but also from the secondary coordination of other systems that women come in

contact with. These would include the health and psychiatric systems and community agencies such as, food banks, emergency housing and counselling centres.

5.6.1.3 Addressing Barriers

Research shows that pregnant and parenting women who have substance abuse issues consistently identify certain barriers to accessing care including: fear of losing their children, judgemental attitudes of service providers, deep fear and distrust of many professionals, shame, guilt, and lack of transportation and childcare (Rutman, 2000; Milligan, 2002; Howell, 1999). The women in this study may experience these, along with fear and stigma of disclosing their childhood sexual abuse, chronic health problems, psychiatric issues and poverty. Providers have the task of designing their practice to identify and reduce these barriers in order to be effective in preventing child welfare involvement and/or supporting families involved in child welfare.

5.6.1.4 Building Capacity, Competency and Confidence

Family Centred Care recognizes all families have strengths and promotes supporting these strengths rather than only focusing on problems and weaknesses (Dunst, Trivette & Deal, 1994). Likewise, maternal substance abuse literature encourages service providers to separate women's parenting capacity from their day-to-day parenting in the context of heavy substance use and instead consider women's actual and potential resources for mothering, rather than focusing solely on their difficulties and failures (Marcenko, Kemp & Larson, 2000). Service providers must work with pregnant women and their families in a way that builds their capacity, competency and confidence to parent. Families who are connected to child welfare may have low self-confidence due to their child welfare involvement, possible relapses in addiction, poor health, psychiatric

problems and issues stemming from childhood sexual abuse. Supporting and empowering families to build their capacity to problem solve and address the above issues demonstrates respect for family strengths and knowledge.

5.7 Conclusion

Research shows women who have, or may be at risk of having, a child with FASD have more complex life circumstances than women who are not at risk of having a child with FASD. These women's lives are complicated by economic insecurity, mental health problems, legal issues, underprivileged childhoods, destructive social and family relationships and involvement with child welfare. This research project sought to build on the limited body of literature that examines the differences between women who have, or are at risk of having, a child with FASD based on their child welfare involvement. Findings showed, child welfare involvement was related to larger family units, poor health, childhood histories of being repeatedly sexually abused and need for family counselling and psychiatric treatment. A relationship was also found between child welfare involvement and women's need for food banks and emergency housing. Acknowledging these women's life circumstances is imperative as this ecological perspective can provide insight into creating responsive services for these women.

It would be more helpful to think of a mother's substance abuse as interfering with responsive and responsible parenting, rather than as rendering women incapable of good parenting (Marcenko et al., 2000). Not only does substance abuse interfere with responsive parenting, but there are a web of other factors in their lives (e.g. poverty, psychiatric problems, childhood trauma etc.) which prevent optimum parenting. These issues not only exacerbate substance abuse problems but if substance abuse was

eliminated from the equation these issues alone weaken a mother's capacity to adequately provide for her children. If we are to consider how to effectively support these mothers in keeping their families intact, services must begin to co-ordinate and offer women ways to meet their family's unique needs. If the assumption is true that mothers want the best for their children than it is society's responsibility to be able to provide a mother with the necessities to do so.

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