

THE ECOLOGICAL CORRELATES OF SUBSTANCE ABUSE AMONG CPS
INVOLVED WOMEN AND NON-CPS INVOLVED WOMEN

by

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Dedication

To the memory of my beloved father and mother,

Valentin P. Alvarez and Simona A. Alvarez

You would be proud.

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The pursuit of a doctorate degree was something I had considered after completing my Masters degree in Social Work and practicing for several years. However, after joining the academic world in 1994, this seemed to be the next logical step in my career. The journey to earning a Ph.D. spanned over the course of several years and certainly did not occur without the help of many people, whom I am deeply grateful to. I begin with Dr. Marian Aguilar, Program Director for the Social Work Program at Texas A&M International in Laredo, Texas. Dr. Aguilar, a colleague and friend was invariably supportive and graciously provided “consultation on demand”.

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Mary Jo Alvarez-Rodriguez

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ABSTRACT

THE ECOLOGICAL CORRELATES OF SUBSTANCE ABUSE AMONG CPS
INVOLVED WOMEN AND NON-CPS INVOLVED WOMEN

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Child abuse and neglect is a compelling phenomenon that has been attributed to a multitude of factors including maternal substance abuse. A significant number of the women involved with the child welfare system for child abuse or neglect are found to have issues due to substance abuse or dependency. In addition, most women involved with child welfare tend to be single and poor women of color. Still, relatively few studies have focused on these women. This study used an ex post facto design in its aim to increase the understanding of the factors that contribute to substance abuse and child welfare involvement among a group of largely Hispanic women that were involved in a

supportive outpatient treatment program in large southwestern city. The study examined a number of predictor variables that were categorized into three main categories: maternal characteristics, substance abuse factors and associated factors.

Using secondary data obtained from a supportive outpatient treatment program, 200 case records met the criteria for inclusion in the study. The criteria for inclusion in the study was that the woman: (1) was a mother with at least one child, (2) had a substance abuse disorder, and (3) was active in the supportive outpatient treatment for at least three months during 2000-2003. One hundred study group women were mothers with alcohol or drug abuse disorders that had been referred to treatment by Child Protective Services (CPS) while, a comparison group of mothers with similar alcohol or drug abuse experiences had not been referred into treatment by CPS.

Chi-square analysis found that the CPS involved mothers were not significantly different from the Non-CPS involved mothers on all of the variables, however, significant differences were found on age, education, and employment. past treatment, prenatal substance abuse, childhood abuse, the perpetrator of the abuse, type of abuse experienced, and domestic violence. The results of a stepwise logistic regression method determined that five factors were significant in predicting child protective services involvement. These results and their implications social work practice, policy and research are presented.

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CHAPTER 1

STATEMENT OF THE PROBLEM

1.1 Scope of Child Abuse and Neglect

As the number of child maltreatment cases increases, the plight of abused and neglected children remains one of the most challenging and compelling issues for public policy and practice (Baumrind, 1995; Sagatun & Edwards, 1995; Widom, 2001). In 1992 Child Protective Services (CPS) revealed that of 2.9 million children reported for child abuse or neglect, 992,617 were substantiated cases or cases that had actually occurred (National Center on Child Abuse and Neglect, 1994). The National Committee to Prevent Child Abuse found that of 3,140,000 reported cases of child abuse or neglect, over one million were substantiated (Wiese & Daro, 1995). More of the substantiated cases have been found to involve children of color (Courtney & Barth, 1996). Furthermore, increases in the number of substantiated cases of abuse or neglect (CAN), parallel with the emerging trends of abused and neglected children altogether. Between 1986 and 1997, the number of abused and neglected children had more than doubled from 1.4 million to 3.0 million (Reid, Macchetto & Foster, 1999).

In the second National Incidence Study of Child Abuse and Neglect (NIS-2), one of the largest national studies examining child abuse prevalence rates, the number of abused and neglected children had spiraled (Flanagan, 2002; Sdlak & Broadhurst, 1999). The NIS-3 study reported the number of abused and neglected children was two-thirds

higher than the previous study. While studies have suggested that numerous factors account for the rise in child maltreatment cases, a major concern is that abuse of alcohol or drugs by a parent or primary caregiver is a pivotal force in the unremitting growth of the nation's abused and neglected children (Arad, 2001; Azzi-Lessing & Olsen, 1996; Barth, 1994; Blau & Whewell, 1994; Berger & Waldfogel; Besinger, et al., 1999; Carten, 1996; CASA, 1999; Curtis & McCullough, 1993; Dore & Doris, 1998; Fieg & McCullough, 1997; Gregoire, 2001; Gudzer et al., 1996; Harmer & Sanderson, 1999; Harrington et al., 1995; Huang, 1998; Kelleher et al., 1994; Kropenske et al., 1994; Jaudes, 1995; Lewis & Giovanni, 1997; McAlpine, 2001; Miller, Smyth, & Mudar, 1997; Petras, Massat & Essex, 2002; Rittner & Dozier, 2000; Semidei, 2001; Sheridan, 1995; Suchman, 2000; Tracey, 1994; Tyler et al., 1997; U.S. Department of Health and Human Services, 2001).

Currently the prospect of a parent's substance abuse or dependence disorder looms as a major factor in the abuse and neglect of millions of children (Albert, 2000; Azzi-Lessing & Olsen, 1996; Chaffin, Kelleher & Hollenberg, 1996; Kelleher et al., 1996; Sheridan, 1995; Sidebotham et al., 2000; Young and Gardner, 2000). Among impacted children numerous studies have found that neglect is more prevalent than other forms of abuse (Barth, 2001; Besinger et al., 1999; Chaffin, et al., 1996; Dore, Doris & Wright, 1995; Ethier, Couture & Lacharite, 2004; Famularo et al., 1992; Fieg & McCullough, 1997; Famularo, Kinscheff & Fenton, 1992; Kelleher et al., 1994; Mum, Olsen & Allen, 1998; Nair et al., 1997; Semidei, Radel & Nolan, 2001; Suchman, 2000). Child neglect is presently the main reason for child removal among many children from

families with substance abuse issues (Barth, 2001; Besinger et al., 1999; Fieg, 1998; Nair et al., 1997; Tyler et al., 1997) representing up to one half of the cases reported for child maltreatment (Cash & Wilke, 2003).

The neglect of a child generally occurs when a child is not cared for properly or in situations where the child may not be adequately supervised (Fieg & McCullough, 1997; Widom, 2001). According to Jaudes, Ekwo & Van Voorhis, (1995), the subtle, yet pernicious effects of neglect may be more harmful than other forms of abuse. Numerous studies have documented neglect among children who have parents with substance abusing disorders (Albert et al., 2000; Besinger et al., 1999; CASA, 1999; Chaffin, Kelleher & Hollenberg, 1996; Harrington et al., 1995; McNichol, 2001; Rittner & Dozier, 2000; Semidei, Radel & Nolan, 2001; Sheridan, 1995; Sun et al., 2001; Takayama, Wolfe & Coulter, 1998).

Although recent studies show that child maltreatment is more widespread among parents with substance abusing disorders and that more parents who abuse or neglect their children are admitting to substance abuse disorders, (Califano, 1999; CASA, 1999; Fieg, 1998; Fieg & McCullough, 1997; Kelleher et al., 1994; Kelley, 1992; Nair et al., 1997), little is known about these families (Besinger et al., 1999; Blau & Whewell, 1994; Widom, 2001). Even less is known about “what works” to minimize the child abuse and neglect among these families (Resnick et al., 1998; Fieg & McCullough, 1997).

1.2 Issues of Child Welfare Involved Parents

The increase in child maltreatment cases involving parents with substance abuse disorders has stirred some trepidation (Karoll & Poertner, 2002; Olson, 1996; Petras,

Massat & Essex, 2002; Resnick, et al., 1998) and the enactment of the Adoption and Safe Families Act of 1997 (P.L. 105-89) has propelled this issue to the forefront (Gregoire & Schuck, 2001; Morton, 1999; Smith, 2003; Young & Gardner, 2000). The act requires that children who have remained in care (outside of the home) for at least 15 of 22 months, be permanently placed and a petition to terminate parental rights be filed (McAlpine, Courts & Doran, 2001; Smith, 2003). This step has overruled family preservation and reunification, making child safety (Brooks & Webster, 1999; Karoll & Poertner, 2002; Petras, Massat & Essex, 2002; Smith, 2003) the top priority.

Furthermore, the passage of this act has created other unique problems for addicted parents involved with child welfare (Califano, 1999; CASA, 1999; Cash & Wilke, 2003; Cohen, 2003; U.S. Department of Health and Human Services, 2001; Smith, 2003). For example, if a mother is actively involved in treatment or seeking treatment for substance abuse, the time needed for completion may not coincide with the impending timelines associated with child welfare decision-making (Azzi-Lessing & Olsen, 1996; Barth, 2001; Cash & Wilke, 2003; Fieg, 1998).

As a result, a mother may face the paradox of losing her children because of non-compliance with child welfare standards or deferring treatment for fear of losing her children (Hohman, Schillington & Baxter, 2003). In cases where women may enter treatment women often encounter other obstacles such as: the lack of childcare, guilt, shame, stigma, or a lack of family support. Moreover, because many women with alcohol or drug abuse disorders are involved with male users, recovery may be more difficult to achieve or sustain (Dore, 1998; Gregoire & Schultz, 2001).

For women involved with the child welfare system, non-compliance with treatment or refusal to submit to treatment can be a justification for child placement. These women are further constrained by zero tolerance policies that espouse abstinence and disregard the relapse that may occur while in recovery from drug use (Elstein, 2001; Department of Health and Human Resources, 2001; Lawson et al., 2001; Young, et al., 1998). When relapse occurs, child welfare and treatment professionals have been known to hold conflicting views. On the one hand, the treatment community views relapse a natural process of recovery, whereas, child welfare professionals may consider a relapse as a potential for endangerment of the child (Azzi-Lessing & Olsen, 1996; Barth, 2001; CASA, 1999; Fieg, 1998; Kropenske et al., 1994; Resnick et al., 1998; Rittner & Dozier, 2000).

The issues of non-compliance and relapse have added to the unique challenges posed by mothers with substance abuse disorders to the treatment field and child welfare professionals (Azzi-Lessing & Olsen, 1996, Barth, 2001, CASA, 1999, Dore & Doris, 1997, Fieg, 1998, Resnick, et al., 1998) as neither system has been prepared to deal with the growing number of mothers, whose substance abuse has been a key factor in the abuse or neglect of their children (Blau & Whewell, 1994; Califano, 1999; CASA, 1999; Sun et al., 2001). Furthermore, there is no consensus regarding the extent and nature of this problem (Besinger et al., 1999; Califano, 1999; Chaffin, Kelleher & Hollenberg, 1996; Colby & Murrell, 1998; Fieg, 1998; Kelleher, et al., 1994; Miller, Smyth & Mudar, 1997; Rittner & Dozier, 2000; Semidei, Radal & Nolan, 2001; Widom, 2001).

1.3 Extent of the Problem

One of the problems encountered in this research is that there is no reliable method for measuring with any real accuracy the prevalence of families involved with child welfare where substance abuse is a factor (Besinger et al., 1999; Chaffin, Kelleher & Hollenberg, 1996; Rittner & Dozier, 2000; Semidei, Radal & Nolan, 2001). The failure to accurately assess substance abuse among child welfare involved families has often been compounded by the tendency of these families to conceal these types of problems (Dore, Doris & Wright, 1995; Murphy et al., 1991; Rittner & Dozier, 2000). Nonetheless, the National Clinical Evaluation Study documented the existence of substance abuse in over half of neglectful and physically abusive families examined in data from 19 demonstration sites across the nation (Peterson, Gable & Saldana, 1996).

A significant number of other studies have suggested that between 40% to 80% of all families involved with child welfare have some type of alcohol or drug problem and those problems may well be associated with child abuse and neglect (Azzi-Lessing & Olsen, 1996; CASA, 1999; Carten, 1996; Colby & Murrell, 1998; Courtney & Barth, 1996; Curtis & McCullough, 1993; Gardner & Dennis, 1998; Kelleher et al., 1994; Kissin et al., 2001; Kropenske et al., 1994; Marcenko & Spence, 1995; Magura & Laudet, 1996; Edelman, 1993; McAlpine, Marshall & Doran, 2001; Mum, Olsen & Allen, 1998; Rittner & Dozier, 2000; Scannapieco & Jackson, 1996; Widom, 2001; Young, Gardner & Dennis, 1998). Substance abuse has also been linked to recurrent reports of child abuse and neglect (CASA, 1999; Dore, 1998; English & Marshall, 1999; Wolock & Magura, 1996). What also remain unclear are the measures that are used to substantiate substance

abuse in the first place. Thus, it is likely that fewer families with substance abuse issues are even identified, much less reported (Courtney & Barth, 1996; Fieg, 1998).

1.4 Women, Child Welfare and Substance Abuse

A specific factor that has given rise to child welfare cases has been attributed to the fact that a greater number of women use drugs more than before (Bishop et al., 2001; Carten, 1996; Harrington et al., 1995; Kissin et al., 2001; Resnick et al., 1998). In 1995, The National Institute on Drug Abuse (NIDA) estimated that as many as 15% of young women in the reproductive years used alcohol and/or drugs. Although alcohol is more widely used, drug use among the sampled women included cocaine and marijuana (Hoffman et al., 2003). Results from national drug screening programs also found a prevalence of illicit drugs that included cocaine and heroin among women of childbearing age (Kissin et al., 2000; Marcenko & Spence, 1995; Nair et al., 1997).

A significant number of studies have also found that maternal addiction is a major reason for the increasing number of children in the nation's foster care system (Azzillessing & Olsen, 1996; Berger & Waldfogel, 2000; Bishop et al., 2001; CASA, 1999, Clark, 2001; Dore et al., 1995; Famularo, Jaudes, Ekwo & Voorhis, 1995; Kinscheff & Fenton, 1992; Nair et al., 1997; Resnick et al., 1998; Takayama, Wolfe & Coulter, 1998). However, Besinger et al., (1999) contends that most children who have been exposed to substance abuse are not exposed prenatally.

Still, child custody suits are more likely to involve women with substance abuse disorders (Kissin et al., 2001; Kovalesky, 2001; Nelson-Zlupko & Kauffman, 1995; Richter & Bammer, 2000), and more women come to the attention of the child welfare

system despite evidence that a growing number of fathers are also mired in child welfare system because of abuse or neglect (Chaffin, Kelleher & Hollenberg, 1996; Department of Health and Human Services, 1997; Karoll & Poertner, 2002; Miller, Symth & Mudar, 1999).

Belsky (1993) has suggested that women are vulnerable to child abuse investigations because they are the primary caregivers. Yet, even as there are more child welfare reports on women than men, the research on women with substance abuse disorders is scarce in comparison to men. Women remain the least researched and the most underserved (Carten, 1996; Davis, 1997; Dore & Doris, 1998; Gregoire & Schultz, 2001; Harmer & Sanderson, 1999; Marcenko & Spence, 1995; Miller & Stermac, 2000; Peterson, Gable & Saldana, 1996).

In summary, maternal substance abuse is not only responsible for the growing incidence of child abuse and neglect but also for a multitude of other issues. Studies continue to show that women who abuse alcohol or drugs face far greater obstacles in raising and supporting their children than non-using mothers (CASA, 1999; Dore, 1994; Dore & Doris, 1998; Gregoire, 1994; Gruber, 2000; Hoffman et al., 2003; Kissin et al., 2001; Nair et al., 2003). Nonetheless, relatively few studies have examined women with substance abuse disorders marred by the prospect of losing their children to child welfare (Barth, 2001; Dore & Doris, 1997; Dore, 1998).

1.5 Out of Home Placement

Recently, the National Committee to Prevent Child Abuse cited poverty and substance abuse as the two main reasons for child placement (Azzi-Lessing & Olsen,

1996; Gregoire, 2001; Resnick et al., 1998), amid an escalating number of children entering the foster care system (Brooks & Barth, 1998; CASA, 1999; Scannapieco & Jackson, 1996). In 2001, the Administration for Children and Families reported that an astounding 542,000 children were in foster care (U.S. Department of Health and Human Services, 2003). This result shows a calculated 47% increase from 340,000 cases in 1988 (Gregoire & Schultz, 2001).

Thousands of foster care children, particularly infants have gained entry into foster care placements because of the far reaching effects of drug exposure in light of the nation's drug epidemic (Barth, 2001; Carten, 1996; CASA, 1999; Kissin et al., 2001; Lewis & Giovanni, 1997; Marcenko & Spence, 1995; McNichol, & Tash, 2001; Nair et al., 1997; Resnick et al., 1998; Takayama, Wolfe & Coulter, 1998; Smith, 2003; Tyler et al., 1997). A significant number of these children enter placements with an array of health, behavioral or emotional issues creating formidable challenges for foster parents or other caregivers (Barth, 2001; CASA, 1999; Fieg & McCullough, 1997; Hunger, 1996; McNichol & Tash, 2001; Takayama, Wolfe & Coulter, 1998).

Increasing child maltreatment reports and foster care needs compounded by an overwhelming number of cases assumed by child welfare workers have posed some major problems to the child welfare system. (Barth, 2001; Califano, 1999; CASA, 1999; Dore & Doris, 1998; Fieg & McCullough, 1997; Olsen, 1996; Young, Gardner & Dennis, 1998). According to Cole and colleagues (1996), "Whatever the prevalence of children exposed to drugs and alcohol in the general population, there can be little doubt that the vast majority of children entering foster care are affected by living in substance abusing

families.” As a result of this outgrowth, the landscape of the child welfare system has forever been changed and the safety of the nation’s children continues to remain in question (Califano, 1999).

1.6 Children of Parents with Substance Abuse Disorders

As the nation continues to engage in the ominous battle against drugs, what remains clear is that virtually no one has been unscathed by its effects. Society, families and children have all experienced the effects of substance abuse. It has been estimated that millions of children (See Table 1.1) are impacted by a parent’s or a primary caregiver’s substance abuse (Johnson & Left, 1999; McNichol & Tash, 2001; Young & Gardner, 2000). Fieg, (1998) contends that “children are the real casualties of the drug war.”

Table 1.1

Estimated Cases Reported, Investigated, Substantiated, and Placed in Out of Home Care in 1997 by Child Protective Services

	All children affected by child abuse and neglect	Children affected by child abuse and neglect and parental substance abuse
Annual children reported	2.8 million	Unknown
CPS investigations (estimated)	1.82 million	Unknown
Substantiated cases	903,000 victims	451,500 (50%)
Young children (ages 0-7)	451,500	352,170 (78%)
Placed in out of home care	177,000	115,050 to 132,750 (65-75%)
Point in time census total population of children in out of home care (9/30/99)	568,000	369,200-426,000 (65-75%)

Young, N.K., & Gardner, S.L. (2000). *Navigating the pathways: Lessons and promising practices in linking alcohol and drug services with child welfare*. Technical Assistance Publication Series, U.S. Department of Health and Human Services, Center for Substance Abuse Treatment, Rockville, MD.

In 1999, the National Household Survey suggested that of an estimated 8.3 million children in the United States, 11 percent of all children resided in households in which at least one parent was either alcoholic or in need of some type of substance abuse treatment. Huang, Cerborne & Gfroerer (1998) have suggested that the number of children impacted by a parent's alcohol or drug use experience, is probably higher ranging from 8.3 million to 17.5 million. Other estimates have indicated that up to 6 million children live with at least one parent with a substance abuse disorder (Office of Applied Studies, 2003).

While there is no doubt that an exorbitant number of children are impacted by the alcohol or drug use of a parent or caregiver, there is no precise method for determining the full extent of this phenomenon (Besinger et al., 1999; Johnson & Left, 1999). Current data on the children of parents with alcohol or drug abuse disorders appears to be a gross underestimation and it is likely that millions of these children remain unaccounted for (CASA, 1999; Jaudes & Ekwo, 1995; Ohannessian, McCauley & Hesselbrock, 1999).

1.7 Consequences of Parental Alcohol or Drug Abuse

The effects of substance abuse on the progeny of parents with substance abuse disorders have been well documented (Chasnoff, Landress & Barrett, 1990; Famularo et al., 1992; Harden, 1998; Johnson & Left, 1999; Keller et al., 2002; Miller et al., 1997; Young, Garner & Dennis, 1998). Children of parents with alcohol or drug related issues have been found to experience a variation of physical, emotional, psychological and developmental problems (Barth, 2001; Besharov, 1992; CASA, 1999; Caudill et al., 1994; Dore, Dore & Wright, 1995; Fieg & McCullough, 1997; Johnson & Left, 1999; Keller et al., 2002; Kumpfer, 1999; McNichol, 2001; Miller et al., 1997; Resnick et al., 1998; Richter & Bammer, 2000; Rittner & Dozier, Semidei, Radel & Nolan, 2001; Sheridan, 1995; Sun, 2001; Tillet & Osborne, 2000; Widom, 2001).

While the entire family system can be caught up in the mayhem (Resnick et al., 1998), children often endure the most damaging effects (CASA, 1999; McNichol, 2001). Among infants, the outcomes can be far more severe resulting in premature birth and low birth rates, abnormal deficiencies, susceptibility to disease, and higher mortality rates (Azuma & Chasnoff, 1993; CASA, 1999; Dore, Doris & Wright, 1995; Fieg, 1998). As a

result, the trajectories associated with prenatal or perinatal addiction have generated wide interest resulting in a significant amount of research that is underscored by maternal addiction (Peterson, Gable & Saldana, 1996). A number of these studies include the seminal work of Chasnoff and associates.

In summary, the children of parents with substance abuse disorders face a perilous future. Regardless if the exposure to substance abuse is prenatal or postnatal, these children remain at risk for a variety of consequences that can imperil their opportunity for a healthy development (CASA, 1999; Fieg, 1998; Resnick et al., 1998). This ominous prospect warrants the need for further examination of the risk factors that compromise the young lives of these children.

1.8 Dissertation Aims and Rationale

In the last decade, child maltreatment research has recognized that women with substance abuse issues represent a significant portion of the families involved with child welfare because of child abuse and neglect (Blau & Whewell, 1994; Carten, 1996; CASA, 1999; Dore, Doris & Wright, 1995; Dore & Doris, 1998; Fieg & McCullough, 1997; Garbarino & Ebata, 1983; Kelleher et al., 1994; McAlpine, 2001; Resnick et al., 1998; Widom, 2001). Yet, little is known about these women, the substance abuse and related factors that place them at risk for child abuse and neglect. The aim of this study aimed to identify the ecological correlates of mothers with alcohol or drug abuse disorders who are involved with CPS due to child abuse or neglect.

The goal of identifying the ecological correlates will provide answers that can be applied in assessment, prevention or intervention strategies directed at reducing the threat

of child welfare involvement and child abuse and neglect. Considering that a substantial number of women with alcohol or drug abuse issues often come to the attention of CPS for child abuse or neglect, studying the factors and patterns that may contribute to the predicament of CPS involvement, can ultimately minimize the risk of child abuse and neglect. This is the overarching goal that underscores this study.

The following objectives have guided the exploratory phase of this study:

- To examine the extent and scope of the problem
- To gain an understanding of the literature and its implications for research
- To understand how the problem is viewed from different perspectives
- To identify key questions for research
- To substantiate the risk factors for substance abuse among child welfare involved women

The rationale for the research is based on numerous factors: (1) very few studies have examined substance abuse, or the indicators of substance abuse among child welfare involved mothers; (2) the increased knowledge of the characteristics that distinguish child welfare involved mothers will be useful in the future development of early risk models for child maltreatment; (3) the understanding the risk factors that contribute to substance abuse and child abuse among child welfare involved families is crucial to effective intervention and lastly, (4) there is a need for research in alcohol and drug related studies among ethnic minorities, particularly women. Minority women are the least researched despite of their overrepresentation in the child welfare system.

Identifying the risk factors of substance abuse among mothers entangled in the child welfare system is of particular importance for the cross training of child welfare workers and substance abuse treatment professionals (Azzing-Lessing & Olsen, 1996; Califano, 1999; CASA, 1999; Dore & Doris, 1998; English & Marshall, 1999; Fieg & McCullough, 1998; Karroll, 2002; Kropenske et al., 1994; Rittner & Dozier, 2000; Sun et al., 2001; Wolock & Magura, 1996). While the exchange of information in these fields seldom occurs, it is direly needed (Fieg, 1998; Blau & Whewell, 1994). Furthermore, it is anticipated that the results of the proposed research will provide estimates on the extent of this problem, the risk factors associated with substance abuse among parents who maltreat their children, demographic profiles and corresponding recommendations. Finally, the findings could impact planning and development of prevention/treatment and support services that may be instrumental in minimizing the potential for child abuse and neglect among the children of women with alcohol or drug related issues.

1.9 Implications for Social Work

Since its origin in the early 19th century, the social work profession has been committed to the plight of the most vulnerable of people (Brown & Mills, 2001; Hepworth et al., 2002). Children who have been abused or neglected represent one of the most vulnerable populations addressed by the profession of social work. As a result of their experiences, these children have many issues that have created numerous challenges to social work and other professions (CASA, 1999; Dore & Doris, 1998; Fieg, 1998; Fieg & McCullough, 1997; Karroll & Poertner, 2002).

Countless social workers in diverse settings and communities provide services to these children, however, the prime responsibility of minimizing risk and harm to these children has been assigned to the child welfare system, or more specifically, Child Protective Services (CASA, 1999, English & Marshall, 1999, Fieg, 1998, Fieg & McCullough, 1997). Whereas this system is not solely comprised of social workers, the organizational philosophy and mission that direct the work is largely embedded on the principles and values of social work.

In 1991, the National Association of Public Child Welfare Administrators (NAPCWA) adopted principles for child welfare in their work with substance abusing families and drug exposed infants. Fundamental to these tenets is the aim to protect children and ensure their healthy development (Fieg & McCullough, 1997). Concomitantly, this study is guided by these same values: to protect and minimize harm to children at risk because of parental substance abuse. Millions of children's lives are in constant jeopardy due to a parent's alcohol or drug abuse. The Child Welfare League of America (CWLA) notes "The courts like the child welfare system are in crisis overwhelmed by the increasing numbers of cases involving alcohol or other drug use." A higher proportion of these children may end up in foster care, where the outcomes may not necessarily be better.

In order to minimize the prospect of harm posed to these children due to a mother's substance abuse, the corresponding factors that contribute to alcohol and/or drug abuse must first be understood (Caudill et al., 1994; Fieg, 1998; Karoll & Poertner, 2002; Widom, 2001). Too little is known about these mothers beyond the fact that they

are overrepresented in the child welfare system. (CASA, 1999; Fieg, 1998; Dore & Doris, 1998; Fieg & McCullough, 1997; Miller et al., 1997; Widom, 2001). Identifying the risk factors that underscore substance abuse is integral to prevention and treatment programs that can address the unique needs of addicted parents in general (Carten, 1996; Resnick et al., 1998; Karoll & Poertner, 2002). Results are also bound to benefit child welfare workers to better understand the factors that are associated with diverse substance abuse disorders. This aspect could hasten the treatment for substance abuse that is direly needed. Finally, it is anticipated that through the proposed research the social work profession including practice and policy will be better informed so as to provide more appropriate responses.

It is a travesty that amid the growing incidence of substance abuse in child protective services reports, the responses by the child welfare system have mostly been punitive measures, such as out-of-home placements or coercive attempts to provide a normative childrearing environment (Albert et al., 2000; Califano, 1999; Carten, 1996; CASA, 1999; Cohen, 2003; Rittner & Dozier, 2000). If treatment is needed, but not provided it is difficult to argue that addicted parents are truly being afforded the opportunity to address the barriers that may promote successful family life (U.S. Department of Health and Human Services, 2001). Thus the results of this research are crucial. At the Tejas Recovery and Counseling Center in San Antonio, the site of this study, program administrators revealed that future treatment for these parents has been compromised because of recent state funding cuts (Personal Communication, Dr. Thomas Hoy, October 23, 2003).

In conclusion, scores of studies have examined child maltreatment and substance abuse as distinct topics, however exploration of substance abuse within the context of child welfare is modest in comparison (Sun et al., 2001). In addition, the research on minority women, particularly Mexican American women with children is scarce. Substance abuse must be examined in that context (CASA, 1999; Fieg, 1998; Karoll & Poertner, 2002). The results can contribute immensely to the development of relevant and appropriate strategies for a high-risk population of caregivers that is escalating to no end (Dore & Doris, 1998).

CHAPTER 2

THEORETICAL UNDERPINNINGS

2.1 Introduction

The role of theory in the understanding of social phenomena cannot be understated. Theoretical frameworks have been fundamental to the work of clinicians and researchers within varied disciplines. The discussion in this paper focuses on the construct of substance abuse within the context of child maltreatment and notes that while a considerable number of theoretical frameworks have expounded on child abuse and substance abuse discretely, the current discourse on substance abuse and child maltreatment in tandem is sparse in comparison.

This section will present the theoretical aspects specific to substance abuse in the context of child welfare, while identifying the limitations in the literature. For the most part, empirical studies examined for this review determined that most of the research in this area has been atheoretical, whereas no specific theoretical framework has been articulated in the study design basically because there is no framework to adequately explain the relationship between childhood maltreatment and substance abuse.

The lack of a conceptually sound theoretical model that provides a reliable explanation to this coexisting relationship continues to be a largely neglected area of study (Ritter & Dozier, 2000). According to Resnick et al., (1998), “Our society is still

far from having a coherent, unified theoretical and research based approach to the prevention and treatment of substance abuse related child welfare problems.”

Methods to discern the conceptual elements intrinsic to child maltreatment and parental substance abuse together, have been compounded by the lack of clear definitions regarding the nature of substance abuse in general (Fieg, 1998; Rittner & Dozier, 2000). Nevertheless, is important to note that: 1) there are conflicting conclusions regarding the nature of abuse and/or addiction (Heyman, 1996; Ondersma, Malcoe & Simpson, 2001; Rittner & Dozier, 2000), 2) despite the range of conceptual theories on substance use disorders, it is a highly complex, developmental phenomenon that cannot be adequately explained by a single theory (McNeece & DiNitto, 1998), and 3) a substantial body of research has suggested that substance use disorders have multiple determinants that are influenced by a variation of cultural, sociological, psychological and biological factors (McGrady & Epstein, 1996).

2.2 Moral Model

Discredited by contemporary scholars, the moral model is one of the earliest perspectives that originated during the Puritan era to explain alcohol abuse (McNeece & DiNitto, 1998). The basic contention associated with this model posits that a person's character deficits are to blame for the addiction or addictive behavior. For example, in accordance with moralist principles, being intoxicated is a voluntary act attributed to the weakness, immorality, idleness or irresponsible behavior of the individual (Gersabeck, 2001; Ondersma, Malcoe & Simpson, 2001). Thus, the addict or alcoholic is often

perceived negatively as a weak willed person with the inability to moderate the consumption of alcohol or drugs (Ray & Ksir, 2004).

Clearly there are shortcomings in this model. The major limitation being that it fails to consider or explain other salient factors (i.e., physiological or environmental) that may influence or contribute to substance use. Yet, in spite of these limitations, undertones of the moral model continue to be reflected in policies pertaining to alcohol and drug abuse. It could likely account for the abiding attitudes toward parents with alcohol or drug abuse disorders that are engaged with child welfare.

Some studies allege that parents with alcohol or drug use issues are often perceived negatively by child welfare workers. Thus, parents may be viewed as being unmotivated, uncaring, and lacking in parental ability, henceforth resulting in unreasonable expectations by child welfare workers and inappropriate interventions that result in poorer outcomes on part of the parents (Fieg, 1998). For the most part, such attitudes have been largely ascribed to the lack of knowledge and expertise of child welfare workers about addictive disorders and associative behaviors (Fieg, 1998; Gregoire, 1994; Harmer & Sanderson, 1999; Resnick et al., 1998), thus calling attention once more to the need for addiction training.

2.3 Biological Model: Addiction as a Disease

The biological models of addiction are based on the medical model that evolved from E.M. Jellinek's preliminary research for his masterwork, *The Disease Concept of Alcoholism* in the 1930's. Jellinek's early work produced the first diagnostic framework that enabled physicians to categorize patients according to drinking patterns. In turn, the

framework formed the template on the progressive nature of alcoholism that continues to be widely used. Even more important is the aspect that through these pioneering efforts, alcoholism was officially recognized and accepted as a disease by the American Medical Association in 1956 (Kinney, 2003).

Since then, the medical model has been considered the dominant paradigm used in the diagnosis and treatment of substance abuse or dependence (Fox, 1999; Gersabeck, 2001). The medical model attributes addiction to a metabolic disease (Ondersma, Malcoe & Simpson, 2001). It is premised on the belief that alcohol or drug dependency is progressive and if left untreated, it can result serious consequences including death (Fieg, 1998; Nair et al., 1997). A key feature of the model is the anticipated *loss of control* (Heyman, 1996).

In accordance, among parental substance abusers, child abuse or neglect can stem from the loss of control that underscores the medical model's progressive nature. More specifically, the loss of control can suggest that a parent can no longer control use of the drug. Furthermore, a person may become obsessed with the drug to the point that it consumes the major part of the user's time, energy and resources. Family, children and other important areas (i.e., employment) of the person's life become secondary to the compulsive need for the drug.

These circumstances often lead to child neglect, giving reason for the high incidence of neglect (versus other forms of child abuse) among parental substance abusers (Heyman, 1996). Using this model to understand substance abuse among parents engaged in the child welfare system, it would be important to generate information on the

antecedents and consequences of substance abuse. Furthermore, viewing a substance use disorder based on the medical model, suggests that a person possesses a disease similar to cancer or tuberculosis. Thus, the appropriate treatment for the disorder would require that it be delivered under the auspices of medically authorized professionals. Yet, with the exception of detoxification, substance use disorders are generally treated using behaviorally based or cognitive models (McNeece & DiNitto, 1998).

A major advantage to the disease framework is that it elicits more empathy and support for the substance abuser that is perceived as ill versus pathological or immoral. Thus the paradigm shift from a moralist model to a disease model has been effective at minimizing the prospect of “blaming the victim”. This change is important in that it could promote substance abuse treatment that may be needed by these parents. In summary, the medical model suggests that without the appropriate intervention to “treat” the disease, the consequences can be terminal. Considering that treatment is invariably limited, having access to addiction treatment can go far beyond minimizing the potential harm posed to the children of parents with substance abuse disorders.

2.4 Genetic Model

The genetic theories are interrelated to the medical model. Genetic theories postulate that predisposition to alcohol or drug use increases a person’s likelihood for substance abuse and substance dependency. This phenomenon has been widely associated with abuse and addictive behavior. Recent research suggests that genetic theories are multidimensional in that certain genetic and environmental factors combine

in a manner that places some individuals at a higher risk for alcoholism than others (Johnson & Left, 1999).

In this way, the genetic explanation for addictive disorders could be used to explain the high incidence of familial substance abuse among substance abusing populations in general. It also suggests that children of addicted parents are at risk for inheritance of an addictive disorder. The prospect of a genetic base for addiction has been widely supported by compelling evidence (Doweiko, 2002; Johnson & Left, 1999). For example, in 1981, Cloninger et al. conducted a landmark study on cases studies involving 3000 adopted individuals. The results found high rates of alcoholism among children of alcoholics despite placement in non-alcoholic households. Still, it is important to acknowledge that not everyone raised in an addictive environment becomes an alcoholic or an addict. While the specific role of the genetic influences on the subsequent development of substance abuse remains inconclusive (Caudill et al., 1994), predisposition is a salient risk factor for subsequent alcohol or drug use.

2.5 Sociological Models

Sociological theory has made significant contributions to our understanding of child maltreatment and substance abuse. In terms of child abuse and neglect, the sociological framework has proposed that social class differences often contribute to the trajectory of child abuse and/or neglect. Factors such as unemployment, work related pressures, or low pay may precipitate stress. In turn, the added pressures may precipitate child abuse, substance abuse, or violence (Dore and Doris, 1998). The model holds that in order to better understand child maltreatment or substance abuse it is crucial to

recognize the relationship that various external factors play in perpetuating or contributing to the behavior. (Fieg, 1998; Sidebotham & Golding, 2001).

Miller et al., (1997) have proposed that cognitive disorganization, deviance disavowal and disinhibition are models that have emanated from sociological theory to explain substance abuse. Cognitive disorganization proposes that when integral functions such as communication within a family system break down, the routine dialogue can be misconstrued and result in confrontations that may perpetuate violence. In accordance, many family interventions and family therapy attending to the needs of substance abusing families have often included modules that address dysfunctional family roles and communication patterns (McGrady & Epstein, 1996).

In the deviance disavowal model, drinking is used to justify the unanticipated violence associated with child abuse or neglect, while inadvertently minimizing the personal responsibility of the perpetrator. It may be that a person believes that the drinking can be used to rationalize the proscribed behavior (CASA, 1999). Nonetheless, this explanation is refuted by the virtue that most substance abusers do not abuse their children. In the third model posited by Miller and associates, child abuse or neglect is a result of the disinhibitory effects associated with excessive use of a substance.

More specifically, in the process of substance use or abuse, certain pharmacological actions in the brain can interfere with the ability to exercise control over certain behaviors. The loss of control over one's behavior can in turn, cause one's ability to discern socially acceptable behavior vs. non-socially acceptable behavior to diminish

(Miller, et al., 1997). The disinhibition effect can result in an impaired judgment, agitation, or anger (Famularo, Kinscherff & Fenton, 1992).

Morrison (1998) has further suggested that the effects of certain drugs can result in distortions of parental behavior that hinder effective parenting. Thus, aggressive or violent behavior that may include physical or sexual abuse can directly result from the loss of discretion embedded in the disinhibition associated with alcohol or drug use. In sum, many contentions premised on the sociological framework have been presented. Even though each of the explanations has their own merits toward increasing an understanding for addictive disorders and related behaviors, these premises are far too simplistic to provide a full understanding to the multifarious nature of substance use (Sidebotham & Golding, 2001).

2.6 Psychological Explanations

Under the girth of the psychological framework, social learning theory suggests that certain experiences or behaviors, such as substance abuse are learned. Accordingly parental substance abuse and violence are behaviors that are learned through practice usually occurring in the shared experiences of the family. This premise would lend support to a mother's punitiveness toward her children based on her own familial history of violence (Miller, et al., 1999) and children of alcoholics who grow up in homes where alcohol abuse is viewed as normative behavior that they themselves are more prone to adopt (Caudill et al., 1994).

Social learning theory has further suggested that substance abuse is a behavior that is used as a means for coping with any difficult or pressing situation (Carroll, 1998).

As a result, substance abusers spend a substantial part of their time acquiring and using drugs to the exclusion of other important roles and responsibilities (Bloom, 1998). Over time, substance use becomes the antidote for the handling of any crisis or difficult situation. The over reliance on mood altering substances to deal with difficult situations can indicate the need for treatment. In fact, many parents come to the attention of the child welfare system at this stage (Personal Communication, Hugo Sosa, October 23, 2003).

In using this framework to work with parents with substance abuse disorders, it is important to help parents recognize the critical role of family patterns. At the same time, parents need to identify the sources of their stress, while learning more constructive methods of coping or handling difficult situations. Women with alcohol or drug experiences have been found to use drugs as their primary coping mechanism (Nelson-Zlupko & Kauffman, 1995). The ability to respond more appropriately can decrease reliance on alcohol or drugs and minimize the prospect of child abuse or neglect.

Historically, the etiology of substance abuse has additionally included the psychodynamic model. Posited by the seminal work of Sigmund Freud, this framework has promoted an understanding of the manner in which personality and other personal characteristics contribute to substance use disorders. Based on this theory, substance abuse can result from risk factors such as mental disorders that evolve from childhood trauma (Flanagan, 2002). Among alcoholics for example, studies have found a higher incidence of violence when it is accompanied by a psychiatric disorder (Famularo, Kinscherff & Fenton, 1992).

However, social scientists and others have argued that there are no specific personality features that distinguish persons who mistreat their children from those that do not (Chaffin, Kelleher & Hollenberg, 1996). One study concluded the psychodynamic model is inadequate at explaining issues as complex as child maltreatment because the model disregards other external domains (Sidebotham & Golding, 2001). Still, a growing body of literature has found that psychiatric symptomatology is prevalent among substance abusers in general (Brems, 1999; Chaffin, Kelleher & Hollenberg, 1996; Nair, 1997; Namyniuk, 2001).

Furthermore, within the child maltreatment research studies have identified parental psychiatric disorders as a risk factor to child maltreatment (Amodeo & Jones, 1994; Karoll & Poertner, 2002; Nair, 1997; Sidebotham & Golding, 2001). In conclusion, the psychodynamic view has narrowed the complex etiology of addiction/disease to individualistic characterizations or behavior, reflecting a tendency toward reductionism.

2.7 Ecological Model

This research study is based on the ecological systems model of social work. The fundamental principles that are embedded within the ecological framework have added immensely to the understanding of child maltreatment and substance abuse (Sidebotham & Golding, 2001; Theodore & Runyan, 1999). The ecological framework was initially conceptualized in the natural sciences. This paradigm is broad in scope and appears to be a more fitting model to inform practice and direct research with the study population. Pillari (2002) has suggested that working from an ecological context facilitates an ideal milieu for discerning a problem comprehensively.

The researcher found that the ecological approach was used as the key theoretical foundation for a number of studies (English & Marshall, 1999; Sidebotham & Golding, 2001; Suchman, 2000). Suchman (2000) for example, examined several variables inclusive of maternal addiction and low socioeconomic status to discern how these factors influenced parenting behaviors. Sheridan (1995), however, proposed the use of an intergenerational model to explain the interrelationships between substance abuse, family functioning and child maltreatment. This particular approach suggests that the complex nature of the dual phenomena of substance abuse and child maltreatment is not a simple cause-effect relationship, but rather one that is a complex interplay of a number of factors, that can be better understood through the context of the family system and family dynamics. This perspective coincides with the shift in treatment toward a more comprehensive approach (Marcenko & Spence, 1995).

Ecological theory is the most comprehensively wide framework in the practice of social work. It serves as a useful explanation for substance abuse as a correlate of child maltreatment because the model lends itself to the concurrent exploration of the multiple factors that are often affiliated with both child abuse and substance abuse. These could include: parental characteristics, child disposition or environmental factors (Azzi-Lessing & Olsen, 1996; Theodore & Runyan, 1999). Moreover, the ecological model allows for understanding of varied factors within the context of multiple levels that include micro, mezzo, and macro domains. The use of this approach additionally coincides with the understanding that the problems presented by these families are mostly confounded and complex (Mum, Olsen & Allen, 1998).

In practice, the use of an ecological model begins with the process of assessment. A review of the various systems that may include the individual, interpersonal or social context enable the practitioner to gauge the specific transactions that transpire between these systems and the individual (Hepworth, Rooney & Larsen, 2003). This theoretical model will guide the proposed research.

2.8 Conclusion

Substance abuse is a complex phenomenon that has been the object of extensive research and debate and the etiology of substance abuse remains inconclusive as does its definition, effects and treatment. Still over the past century, vast conceptual frameworks have evolved to explain the etiology of substance abuse. These have ranged from frameworks that attribute alcohol and/or drug use to ego deficiencies, poverty, learned behavior, central nervous system imbalances, etc. (Shaffer, 1986). However, most conceptualizations represent reductionist models that have failed to comprehensively address the extent of the substance abuse phenomenon.

CHAPTER 3

CRITICAL REVIEW OF THE SUBSTANCE ABUSE RISK FACTOR RESEARCH

3.1 Systematic Review

A methodical review on the literature corresponding to substance abuse as a correlate of child maltreatment was performed. This process began with the perusal of peer-reviewed journals in social work, psychology, sociology, criminal justice, nursing, and education, and a few law journals. Though there was interesting and relevant discourse in the documents found in the legal databases, information amassed was generally descriptive, and largely limited to the legal implications of parental substance abuse within the child welfare domain. Naturally, this is an important element when examining these combined issues in the ecological context.

The review additionally included journals comprised of alcohol and/or drug studies. The databases used most extensively included Social Work Abstracts, Social Work Research, the National Child Abuse and Neglect (NCAN), documents database, the National Institute on Drug and Alcohol Abuse (NIDA), the National Institute on Alcoholism and Alcohol Abuse (NIAAA), the National Institute of Mental Health (NIMH), and the Substance Abuse, Mental Health Services and Administration (SAMHSA). The latter database included access to links to the Center for Substance Abuse Prevention (CSAP) and the Center for Substance Abuse Treatment (CSAT) that

are institutes that are renowned for research exclusive to substance abuse prevention and treatment.

Key words used in the varied searches included child maltreatment, child abuse and neglect, substance abuse, parental substance abuse, parental drug abuse, drug addiction, alcoholism, children of substance abusers, maternal drug use, maternal substance abuse, children of alcoholics, and in a broader context, addicted or substance abusing women. These research efforts revealed that a considerable amount of literature has begun to surface in this area.

A substantial body of research examining substance abuse in tandem with child abuse and neglect issues has been largely dominated by studies on perinatal addiction that evolved in response to the “crack cocaine” pandemonium in the early eighties. While there is no arguing that prenatal addiction places children at risk, most children of parents with alcohol or drug use experiences, have not been prenatally exposed (Besinger, et al., 1999). Furthermore, because the aim of this study is to examine the ecological correlates of substance abuse among mothers engaged in child welfare due to child abuse or neglect, studies on prenatal substance abuse that are exclusive to women have not been fully reviewed.

Following the basic identification of the research in this area, a more systematic process was used to distinguish the literature to be used in this review. The central criterion for any study to be included was it had to demonstrate emphasis on parental substance abuse as a correlate of child maltreatment. The latter condition was particularly important because of the abundance of literature on both child maltreatment and

substance abuse as discrete areas. This added phase allowed for a synthesis of the research that would be used to critique results related to the contextual factors underscoring parental substance abuse.

The objectives of this research review process were as follows: (1) to identify the discourse related to parental substance abusers involved in child welfare because of child abuse or neglect from the years 1985 to 2003 (This time frame seemed appropriate considering that empirical research on substance abuse in the context of child maltreatment has been mostly amassed in the last decade), (2) to discern the theoretical discourse on this dual phenomena, (3) to synthesize and critique the methods documented in the research to define the construct of substance abuse among parents in child welfare, (4) to identify and critique the methodologies of studies that explored parental substance abuse within the context of child welfare and (5) to identify the risk factors that contribute to substance abuse.

3.1.1 Methodology

This review found that most of the literature exploring substance abuse concomitant to child maltreatment has been largely descriptive (Azzi-Lessing, 1996; Besharov, 1994; Blau & Whewell, 1994; CASA, 1999; Child Welfare League of America, 1998; DePanfilis, 1998; DePanfilis & Zurafin, 1998; Dore, 1998; Dore, Dorkis & Wright, 1995; Elstein, 1999; Flanagan, 2002; Fieg, 1998; Fieg & McCullough, 1997; Giunta & Amatea, 2000; Gruber, 2001; Harrington et al., 1995; Jaudes & Ekwo, 1995; Keller et al., 2002; Kienberger & Ekwo, 1995; Kropensky, 1994; Larsen, 2000; Magura, 1996; McAlpine, 2001; Medora, Wilson & Larsen, 2001; Mumm, Olsen & Allen, 1998;

Murray, Baker & Lewin, 2001; Olsen & Azzi-Lessing, 1996; Ondersma, Malcoe & Simpson, 2000; Patz, 1996; Petras, Massat & Essex, 2002; Ravndal et al., 2001; Reid, Maccheto & Foster, 1999; Sawyer et al., 2002; U.S. Department of Health and Human Services, 2002; Sedlak & Broadhurst, 1996; Semidei, Radel & Nolan, 2001; Sheridan, 1993; Stier et al., 1993; Thompson, 1990; Tracey, 1994; Urquiza, 1996; Widom & Hiller-Strurmhofel, 2001; Wilsnack et al., 1997; Wingfield, Klempner & Pizzigati, 2002; Woolis, 1998; Young, Gardner & Dennis, 1998). To add to this, the results showed that there is great variation in the methodologies that were used. Furthermore, it is clear that the lack of scientific research in this area, substantiates the need for more evidence based studies on the growing number of parents with alcohol or drug abuse disorders who are mired in child welfare.

Few studies expounded on child risk factors specific to women with substance abuse disorders (Albert et al., 2000; Appell, 1997; Beckman, 1994; Dukewich, Borkowski & Whitman, 1999; Elstein, 2001; Gil-Rivas, Fiorentine & Anglin, 1996; Kissin et al., 2001; Markward et al., 2000; Nelson-Zlupko & Kauffman, 1995; Ritcher & Bamernr, 2000; Scott-Lennox et al., 2000; Suchman, 2000; Trepper et al., 1997; Wisnack & Sturmhofel, 1994). However, a number of studies examined the role of childhood victimization in the development of adulthood substance abuse (Downs & Harrison, 1998; Dube et al., 2001; Galaif et al., 2001; Harmer & Sanderson, 1999; Medrano et al., 1999; Millar & Stermac, 2000; Schuck & Widom, 2003; Sheridan, 1995; Westermeyer, 2001). Most of these studies were retrospective focusing primarily on female populations (Widom & Sturmhofel, 2001).

Galaif et al., (2001) compared men and women in prospective relationships among family and alcohol related variables. The results suggested that between both genders, childhood sexual abuse was a predictor for adulthood problems with alcohol use. A significant number of studies examined maternal addiction or more specifically prenatal addiction (Azuma, 1993; Chasnoff, Landress & Barrett, 1990; Dicker & Leighton, 1994; Harden, 1998; Hutchins, 1997; Jaudes et al., 1995; Jaudes, et al., 1997; Kelley, 1992; Levnetha et al., 1996; Madry et al., 1990; Pajulo et al., 2001; Potocky & McDonald, 1996; Richardson & Day, 1999; Stanwood et al., 2001; Tillet & Osborne, 2001; Yolton & Bolig, 1994). However, the only studies on maternal addiction that were included in the review were studies that identified maternal addiction as a factor in child maltreatment.

It is clear that in the last decade, a parent's alcohol or drug use experiences has been identified as a key factor in child abuse or neglect and as a result has become the object of a wide range of literature that is mostly descriptive. The search for empirically validated studies examining parents with substance abuse disorders in the context of child welfare has been limited resulting in twenty-nine studies that varied greatly. These studies and results will be synthesized according to the theoretical aspects, research design, sampling, data collection, operationalization of the substance abuse construct and limitations.

3.1.2 Theoretical Discourse

Most of the articles did not provide any discussion on theory that may have guided the study. A total of twenty-two (75%) studies were not theory driven (Arad,

2001; Besinger, et al., 1999; Brooks & Barth, 1998; Carten, 1996; Caudill et al., 1994; Gregoire & Schultz 2001; Hohman, Schillington & Baxter, 2003; Karoll & Poertner, 2002; Kelleher et al., 1994; Kovalesky, 2001; Lewis & Giovanni, 1997; McCarthy & Waterman, 1999; McNichol, 2001; Marcenko & Spence, 1995; Miller, Smyth & Mudar, 1999; Murphy et al., 1991; Nair et al., 1997; Potocky & McDonald, 1996; Rittner & Dozier, 2000; Sun, 2000; Tyler et al., 1997; Wolock & Magura, 1996). Three studies made reference to the use of the ecological model (English & Marshall, 1999; Chaffin, Kelleher & Hollenberg, 1996; Sidebotham & Golding, 2001). In some cases, the study made reference to adhering to child welfare or substance abuse treatment principles, (Dore & Doris, 1998) however, the inferences were far too vague to make any theoretical assumptions.

3.1.3 Design

Most studies failed to make any reference to a research design. While there were four longitudinal studies (Carta, 2001; Nair et al., 1997; Nair et al., 1997; Magura & Wolock, 1996), only one used experimental methods (Nair et al., 1997). Three of the studies were qualitative (Carten, 1996; Kovalesky, 2001; Sun, 2000), with female samples that had substance abuse disorders that had resulted in the out-of-home placement of their children.

3.1.4 Sampling

The studies that comprised the research cohort, varied largely in terms of samples and sample size. For example, the qualitative studies ranged from small samples of 8, 15 and 20 women (Carten, 1996; Kovalesky, 2001; Sun, 2000) to one study that included

12,329 case reviews (English & Marshall, 1999). Generally, empirical studies that examined substance abuse of a parent or primary caregiver as a risk factor to child maltreatment were included in this review.

Approximately half of the studies focused exclusively on parents or caregivers with alcohol or drug use experiences (Chaffin, Kelleher & Hollenberg, 1996; Dore & Doris, 1998; English & Marshall, 1999; Famularo, Kinscherff & Fenton, Gregoire & Schultz, 2001; Hohman, Shillington & Baxter, 2003; Kelleher et al., 1994; Marcenko & Spence, 1995; Miller, Smyth & Mudar, 1997; Peterson, Gable & Saldana, 1996; Potocky & McDonald, 1996; Sidebotham & Golding, 2001; Tyler et al., 1997; Wolock & Magura, 1996) while some had samples comprised of children in placement (Besinger et al., 1999; McNichol, 2001; Rittner & Dozier), drug exposed infants (Carta et al., 2001), mother/child dyads (Nair et al., 1997) or child welfare workers and substance abuse treatment counselors (Arad, 2001; Karoll & Poertner, 2002).

Thirty-six percent of the studies used probability-sampling methods (Besinger, et al., 1999; Chaffin, Kelleher, & Hollenberg, 1996; English & Marshall, 1999; Famularo, Kinscherff & Fenton, 1992; Kelleher et al., 1994; Miller, Smyth & Mudar, 1999; Nair et al., 1997; Rittner & Dozier, 2000; Tyler et al., 1997; Wolock & Magura, 1996). Nine studies used comparison groups (Brooks & Barth, 1998; Chaffin, Kelleher & Hollenberg, 1996; Kelleher et al., 1994; Miller, Smyth & Mudar, 1999; Murphy et al., 1991; Nair et al., 1997; Tyler et al., 1997; Wolock & Magura, 1996) that were matched on various factors such as age, gender, socioeconomic status or substance abuse.

3.1.5 Data Collection

Several studies collected data through case abstraction methods of child welfare administrative case files (Besinger et al., 1999; Carten, 1996; English & Marshall, 1999; Famularo, Kinscherff & Fenton, 1992; Gregoire & Schultz, 2001; Hohman, Schillington & Baxter, 2003; Kelleher et al., 1994; McNichol & Tash, 2001; Potocky & McDonald, 1996; Rittner & Dozier, 2000; Sun et al., 2001). Alternative documents include court reports (Famularo, Kinscherff & Fenton, 1992; Gregoire & Schultz, 2001; Rittner & Dozier, 2000) and hospital records or reports (Brooks & Barth, 1998).

Eleven studies used structured interviews to obtain data (Arad, 2001; Carten, 1996; Caudill et al., 1994; Chaffin, Kelleher & Hollenberg, 1996; Dore & Doris, 1998; Kovalesky, 2001; Marcenko & Spence, 1995; Miller, Smyth & Mudar, 1999; Nair et al., 1997; Sun, 2000). Most of the interviews were completed with female subjects, since they were overrepresented in the research (Carten, 1996; Chaffin, Kelleher & Hollenberg, 1996; Dore & Doris, 1998; Gregoire & Schultz, 2001; Kovalesky, 2001; Marcenko & Spence, 1995; Miller, Smyth & Mudar, 1999; Nair et al., 1997; Peterson, Gable & Saldana, 1996; Sidebotham & Golding, 2000; Sun, 2000). Five studies used questionnaires to collect data from parents (Arad, 2001; Carten, 1996; Caudill et al., 1994; Nair et al., 1997; Sidebotham & Golding, 2000), while another study generated data through the use of surveys at five research sites (Kelleher et al., 1994).

3.2 Substance Abuse and Substance Dependence Definition

An important finding of this review was the inconsistency of the measures utilized to operationalize substance abuse when it was used as an indicator of child maltreatment

(See Table 3.1). Some empirical studies had a method for substantiating prenatal or post natal substance abuse, however, the lack of a standardized method to substantiate substance abuse in general was further compounded by the fact that fewer studies distinguished between substance abuse and substance dependence (Abad, 2000; Besinger, et al., 1999; Brooks & Barth, 1998; Carta et al., 2001; Carten, 1996; Dore & Doris, 1998; McCarthy & Waterman, 1999; McNichol & Tash, 2001; Ritner & Dozier, 2000; Sun, 2000). These methodological flaws have raised questions as to the reliability and rigor of the research that is evolving in this area.

Among the studies that adhered to a universally accepted method for substantiating substance abuse or dependency, most used the conceptual definitions in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), published by the American Psychiatric Association (1994). The DSM-IV is the clearest indicator for substance abuse or dependency (Besinger et al., 1999). In accordance with the DSM-IV substance abuse is defined as “a maladaptive pattern of substance use leading to a clinically significant impairment or distress, as manifested by one (or more) of the following occurring within a 12-month period:”

3.3 Criteria for Substance Abuse

1. recurrent substance abuse resulting in a failure to fulfill major role obligations at work, school, home (e.g., repeated absences or poor work performance related to substance use; substance related absences, suspensions, or expulsions from school; neglect of children or household)

2. recurrent use in situations in which use is physically hazardous (e.g. driving an automobile or operating a machine when performance is impaired by substance use)
3. recurrent substance-related legal problems (e.g., arrests for substance related disorderly conduct)
4. continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g., arguments with spouse about consequences of intoxication, physical fights)

The symptoms have never met the criteria for substance dependence for this class of substance.

There is a distinct difference between a person who is substance dependent versus a substance abuser as noted in the DSM-IV definition for substance dependence: “A maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12 month period:”

3.4 Criteria for Substance Dependence

1. Tolerance, as defined by either of the following:
 - a. a need for markedly increased amounts of the substance to achieve intoxication or desired effect.
 - b. markedly diminished effect with continued use of the same amount of the substance.
2. Withdrawal, as manifested by either of the following:

- a. the characteristic withdrawal symptoms for the substance (refer to Criteria A or B of the criteria sets for Withdrawal from the specific substances)
 - b. the same (or closely related) substance is taken to relieve or avoid the withdrawal symptoms
3. The substance is often taken in larger amounts or over a longer period of time than was intended.
4. There is a persistent desire or one or more unsuccessful efforts to cut down or control substance use.
5. A great deal of time spent in activities necessary to get the substance (e.g., visiting multiple doctors or driving long distances), use the substance (e.g., chain-smoking), or recover from its effects.
6. Important social, occupational or recreational activities are given up or reduced because of substance use.
7. The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption).

(Lawson, et al., 2001).

3.5 Operationalization of Parental Alcohol and/or Drug Abuse

Twenty-five studies had some method for defining substance abuse (Abad, 2000; Besinger, et al., 1999; Brooks & Barth, 1998; Carta, et al., 2001; Carten, 1996; Caudill et al., 1994; Chaffin, Kelleher & Hollenberg, 1996; Dore & Doris, 1998; English & Marshall, 1999; Famularo, Kinscherff & Fenton, 1992; Gregoire & Schultz, 2001; Karoll & Poertner, 2002; Kelleher et al., 1994; McCarthy & Waterman, 1999; McNichol & Tash, 2001; Marcenko & Spence, 1995; Miller, et al., 1999; Nair et al., 1997; Peterson, Gable & Saldana, 1996; Potocky & McDonald, 1996; Rittner & Dozier, 2000; Sidebotham & Golding, 2001; Sun, 2000; Sun et al., 2001). With the exception of a few studies, (Abad, 2000; Chaffin et al., 1996; Dore & Doris, 1998; Kelleher et al., 1994; Kovalsky, 2001; Marcenko & Spence, 1995; Sidebotham & Golding, 2001; Sun, 2000). An overview of these definitions is included in Table 2. Operationalization of Parent/Caregiver Substance Abuse.

These measures included CPS reports (Besinger et al., 1999; Gregoire & Schultz, 2001; McNichol & Tash, 2001; Sun et al., 2001), retrospective reports (Carta et al., 2001), substantiated allegations by one or more professionals (Famularo, Kinscherff & Fenton, 1992; Karoll & Poerter, 2002). Only three studies relied on DSM-IV criteria (Besinger et al., 1999; Chaffin, Kelleher & Hollenberg, 1996; Miller, 1996). A few studies used the Addiction Severity Index (ASI), a comprehensive assessment tool that is both reliable and valid for use with diverse substance abusing populations (Caudill et al., Marcenko & Spence, 1995; Nair et al., 1997).

While toxicology reports are the most widely utilized method to detect illicit drug use (Albert et al., 2000; Frank, et al., 2002) only three studies used toxicology reports (Gregoire & Schultz, 2001; Carta, 2001; McNichol & Tash, 2001). Toxicology reports have been known to produce false positive and false negative results; therefore, it is prudent to use corroborating methods (Kropense et al., 1994). Positive toxicology results, primarily those detecting prenatal use, have been attributed to the overwhelming number of women involved with the child welfare system (Zellman & Jacobson, 1993).

Other studies relied mostly on self-reports for determining drug use among the samples (Arad, 2001; Brooks & Barth, 1998; Carta et al., 2001; Famularo, Kinscherff & Fenton, 1992; Gregoire & Schultz, 2001; Kovalesky, 2001; McCarthy & Waterman, 1999; Nair et al., 1997; Potocky & McDonald, 1996; Rittner & Dozier, 2000; Sidebotham & Golding, 2001; Sun, 2000). In summary, there are many discrepancies in defining or operationalizing substance abuse. Unless these methodological issues are resolved, the reliability and validity of the studies in this critical area will continue to be compromised.

Table 3.1

Operationalization of Substance Abuse

Author	How Substance Abuse is Operationalized
Abad, B.D. (2000)	<u>Shye's Systemic Quality of Life Questionnaire</u>
Besinger, B.A., Garland, A.F., Litrowik, A.J., & Landsverk, J.A. (1999)	1. Substance Abuse Variables on case abstraction form 2. CPS problem code* 3. DSM-IV Substance Abuse or Substance Dependence Diagnosis
Brooks, D. & Barth, R.P. (1998)	Specified list identifying medical needs or problems that index child had (infant drug exposure or dependency; HIV) that was completed in a two questionnaire completed by caregivers was used to ascertain the child's drug exposure to non-drug exposed.
Carta, J.J., Atwater, JB., Greenwood, C.R., McConnell, S.R. & McVoy, M.A. (2001)	Maternal retrospective reports about substance abuse during pregnancy Substance Use Questionnaire that defined prenatal use as reported use of illegal drugs or consumption of one or more alcoholic drinks per week during any trimester of pregnancy.
Carten, A.J. (1996) **	52 Item Schedule completed using structured interview format (Type of information was vague, but appeared limited to demographics inclusive of subsequent drug use)
Caudill, B.D., Hoffman, J.A., Hubbard, R.L., Flynn, P.M. & Luckey, J.W. (1994)	An assessment battery inclusive of clinical and historical information which includes the Addiction Severity Index; the Symptoms Checklist (SCL-90), and the Diagnostic Interview Schedule
Chaffin, M., Kellefer, K. & Hollenberg, J. (1996).	DSM-III
Dore, M. & Doris, J.M. (1998)	Reports from external treatment providers, however, no details with regard to what it consisted of were indicated.
English & Marshall, (1999)	Study reported the lack of sufficient information on substance abuse was a barrier to the analysis of this risk factor.

Table 3.1 - continued

Famularo, Kinscherff & Fenton (1992)	Substance abuse was established by: 1. substantiated allegations by two or more separate professionals (social services or mental health staff) 2. self reported information of substance abuse that suggested sufficient severity to meet diagnostic criteria provided in research (recreational or occasional use of alcohol or drugs was not considered)
Gregoire & Schultz, (2001)	Examination of indicators that included: 1. client's physical appearance 2. presence of alcohol or drugs or paraphernalia 3. statements made by clients or others regarding alcohol or drugs 4. positive urine screens 5. drug related arrests 6. child maltreatment referrals
Karoll & Poertner, (2002)	Identified indicators based on questionnaire responses collected from diverse professionals (judges, child welfare workers and substance abuse counselors) that included: 1. number of months of clean drug screens
Kelleher et al., (1994)	The Diagnostic Interview Schedule
Kovalesky et al, (2001)**	Self-reported No specific questions documented
McCarthy, C. & Waterman, J. (1999)	Semi-structured interviews - no specificity regarding substance abuse
McNichol, T. & Tash, C. (2001)	PSA was defined using these criterion: 1. Parental mandate for drug testing or addiction treatment; 2. Parental incarceration for drug related offenses; 3. Documentation of child exposure at the time of birth; The information was extrapolated from case notes and was substantiated by either observed and/or inferred evidence.
Marcenko & Spence (1995)	Addiction Severity Index

Table 3.1 – continued

Miller, B., Smyth, N.J. & Mudar, P.A.J. (1999)	(1) Three or more criteria in DSM-III-R diagnostic criteria for alcohol dependence; (2) Regular use and at least one-drug related problem; (3) No regular use but two or more drug related problems; (4) Daily drug use.
Nair et al., (1997)	(1) Focus Interview (2) Maternal and neonatal urine toxicology screen (3) Addiction Severity Index (4) Neonatal Outcome (medical records containing information on child growth and development, gestational age, etc.)
Peterson, Gable & Saldana (1996)	Two interviews based on a subset of the NIMH Diagnostic Interview Schedule: (1) Alcohol Interview (2) Drug Interview
Potocky & McDonald (1996)	Evidence of drug exposed infant based on: (1) Mother's self report (2) Positive drug screen on the infant
Rittner, B. & Dozier, C.D. (2000)	(1) Prima facie results (2) Based on records for substance related offenses (3) Substance abuse treatment evaluations verifying substance abuse history (4) Toxicological results indicating substance-exposed newborns
Sidebotham & Golding (2001)	Self reported information provided by parents
Sun, A-P (2000)**	Guided Interview with following AODA questions: 1. How do these mothers view AOD use and abuse? 2. What are their views on the causes of their substance abuse?
Sun, A-P., Shillington, A.M., Hohman, M., Jones, L. (2001)	Risk assessment tool with an Alcohol of Drug component that was completed by CPS at time of investigation Childhood Trauma Questionnaire

* Refers to CPS code on reason for child's removal inclusive of drug or alcohol use.

**Qualitative Study

3.6 Limitations

There are a number of problems with the current research examining the co-existence of substance abuse and child maltreatment. A main one is that empirical research in this area is very limited. In addition, there is wide variation in the samples that have been the focus of the research. Sample sizes have been moderate to small, ranging from 8 subjects (Sun, 2000) to 639 (Besinger et al., 1999). To add to this, most of the samples have been overrepresented by female subjects (Arad, 2001; Carten, 1996; Dore & Doris, 1998; Famularo, Kinscherff & Fenton, 1992; Gregoire & Schultz, 2001; Karoll & Poertner, 2002; Kovalesky, 2001; McCarthy & Waterman, 1999; Marcenko & Spence, 1995; Miller, Smyth & Mudar, 1999; Nair et al., 1997; Peterson, Gable & Saldana, 1996; Potocky & McDonald, 1996; Sun, 2000; Tyler, Espinosa & Doakes, 1997).

Many factors account for the heavily dominated female samples. For one, most parents involved with child welfare are women because more women assume the primary caretaking responsibilities for their children. In addition, systemic factors such as poverty, racism, societal attitudes and the increase of drug use by women have also given rise to this phenomenon. Two of the larger non-probability studies did include very large samples (Chaffin, Kelleher & Hollenberg, 1999; English & Marshall, 1999).

Still another key limitation was the problems raised due to the lack of consistency in defining substance abuse as a whole. There was no universal method for operationalizing substance abuse, making comparisons difficult if not impossible. Most often, the studies also failed to distinguish between parents or caregivers who may have been abusing substances such as alcohol or drugs, from parents or caregivers who may

have already become dependent on them. Both terms (substance abuse and substance dependence) were often used synonymously suggesting that there is no difference. The failure to make this distinction remains a major problem in the current research.

This review has shown that even though the literature is replete with information pertaining to the influence of a parent's alcohol or drug abuse on child maltreatment, few studies have examined these two phenomena in tandem. Considering the extent and salience of the interrelatedness of the two issues, this is an area that warrants attention. Furthermore, because the majority of the studies were atheoretical, the results point to the need for conceptual frameworks that may help to explain these dual phenomena.

3.7 Risk Factor Research

While very little is known about the correlates of substance abuse among parents engaged in the child welfare system because of child abuse or neglect (Jaudes & Ekwo, 1995; Tyler et al., 1997; Widom, 2001), the following is a discussion of some of the risk factors for substance abuse or child maltreatment found in the research. A total of seventeen variables have formed the basis for this research (See Table 24. Predictor Variables). These have been structured into three main categories that include a number of variables within each category. These will be discussed in terms of outcomes and implications. The categories include: (1) parental characteristics (2) substance abuse factors and (3) associated factors.

3.7.1 Maternal Characteristics

Child maltreatment studies have identified numerous risk factors that include parental variables (Arad, 2000; Belsky, 1993; Besinger et al., 1999; Sidebotham &

Golding, 2001; Tyler et al., 1997). Many parental characteristics have also been associated with substance abusing families (Kettinger, Nair & Schuler, 2000); however only those characteristics that correspond to substance abusers involved with child welfare are discussed. Most research suggests that the presence of certain parental features can increase the likelihood for child abuse and neglect. However, Hohman and associates (2003) found no distinct differences between drug using women who were involved with CPS and those that were not.

Some studies have found that families with substance abuse issues have low cohesion levels, high stressors and poor parental skills (Sheridan, 1995). All of these factors have been known to precipitate child maltreatment. NIDA (2003) reported that substance abusers are often suppressed by a multitude of factors, such as poverty, low education, and lack of social capital. In any case, much more needs to be known about parents that child maltreat (Belsky, 1993; Miller, Symth & Mudar, 1999).

3.7.1.1 Ethnicity

A person's ethnicity alone does not constitute a risk factor for substance abuse or child maltreatment. However, due to the fact that the child welfare system is comprised primarily of women of color makes this variable important to the study and most of the women in the study were women of color.

3.7.1.2 Age

In some studies age has been identified as a risk factor for child abuse or neglect and subsequent involvement with the child welfare system (Donahue, 2004; Dukewich, Borkowski & Whitman, 1999; Murray, Baker & Lewin, 2000). Among women with

substance abuse disorders, younger women under age 20 are more likely to abuse or neglect (Sidebotham & Golding, 2000; Sun, et al., 2001). Researchers examining data from a probabilistic sample of 7,103 parents noted that on average, maltreating parents were younger (Chaffin, Kelleher & Hollenberg, 1996).

Age has also been found to be associated with substance abuse in other ways. For example, one study found that older and more economically stable women were more likely to complete treatment than younger women (Butler, Radia, & Magnatta, 1994). As a rule, studies have found that the younger a person begins to consume alcohol or drugs, the earlier one is likely to experience its adverse effect.

3.7.1.3 Marital Status

Being married or in a stable relationship has been found to be a protective factor against alcohol or drug use whereas, being single is considered a risk factor. Since the early seventies, single parenthood has also been found to be common risk factor for child abuse or neglect (Azzi-Lessing & Olsen, 1996; Barth, 2001; Garbarino, 1976; Murray, Baker & Lewin, 2000). A number of studies in the review were over-represented by single parent households headed by women (Besinger, et al., 1999; Bishop et al., 2001; Hohman, Schillington & Baxter, 2003; Tyler, et al., 1997) and more specifically, minority women (Nair et al., 1997; Tyler et al., 1997). However, Murphy and associates (1991) found no relationship between marital status and caregiver substance abuse in two hundred and six (206) severe child maltreatment court cases. Still, most research has found that children from single parent families face more risks.

3.7.1.4 Family Size

Family size or the number of children in a household has been recognized as a contributing factor to child abuse and neglect. Studies that have looked at family size have reported a higher incidence of child abuse and neglect in single parent homes with multiple children (Kettinger, Nair & Schuler, 2000; Nair et al., 2003). However, one study found no association between family size and child abuse (Jaudes, Ekwo & Van Voorhis, 1995). Nonetheless, the high prevalence of singly headed homes among parents, particularly women involved with child welfare makes this an important variable.

3.7.1.5 Education

Sidebotham & Golding's (2001) study on the parental factors affecting maltreatment found that educational achievement was important to the understanding of child maltreatment. In other research a mother's education was significantly associated with the odds of being abused (Jaudes & Ekwo, 1995; Murray, Baker & Lewin, 2000). Low educational achievement is a common factor among substance abusers and has been noted among studies of child welfare involved mothers with alcohol or drug abuse problems. (Hohman, Shillington & Baxter, 2003; Tyler et al., 1997).

3.7.1.6 Means of Support

Poverty is probably the most salient predictor of child maltreatment (Baumrind, 1995, Belsky, 1993; CASA, 1999; Courtney & Barth, 1996; Kelleher et al., 1994; Kettinger, Nair & Schuler, 2000; Nair et al., 1997; Smith 2003) and has been linked with many of the families involved with child welfare (Barth, 2001; CASA, 1999; Kelleher et al., 1994; Rittner & Dozier, 2000; Sawyer, et al., 2002; Widom, 2001). In Texas, more

than 60% of children removed by CPS come from families with an income of \$10,000 or less (Center for Public Policy Priorities, 2006).

The NIS-2 study found that poorer families with an annual income below fifteen thousand (\$15,000) were four and one half times more likely to be reported to CPS (Azzillessing & Olsen, 1996; Arad, 2001; Courtney & Barth, 1996). In contrast, Chaffin, Kelleher & Hollenberg's probabilistic sample of 7,103 parents found that socioeconomics had a limited effect, suggesting that perhaps the socioeconomic factor cuts across social class.

Numerous studies that have examined family variables associated with child abuse and neglect have included samples largely comprised of lower income parents or caregivers (Arad, 2001; Bishop et al., 2001; Carten, 1996; Hohman, Schillington & Baxter, 2003; Miller, Smyth & Mudar, 1999; Murphy et al., 1991; Sawyer, et al., 2001; Tyler et al., 1997). For a number of these families, public assistance was the primary means of support (Bishop et al., 2001; Murphy et al., 1991; Tyler et al., 1997).

3.7.1.7 Employment

The lack of employment continues to be a major problem among substance abusers (Rittner & Dozier, 2000). This statistic proves true for women with substance abuse disorders (Hohman, Schillington & Baxter, 2003; Tyler et al., 1997; Wallen, 1998) and women involved with child welfare with substance abuse issues. In addition, unemployment can be attributed to various other factors such as being a single parent, lacking employable or marketable skills, lacking education or not having access to childcare. Notwithstanding, not having access to necessary resources such as

employment, adequate shelter and other necessities can pose some serious challenges that can contribute to substance abuse.

3.7.2 Substance Abuse Factors

Though there are no accurate estimates, a significant number of studies have established a high incidence of alcohol or drug use among parents or caregivers with cases of child abuse and neglect (Chaffin, Kelleher & Hollenberg, 1996; Hohman, Schillington & Baxter, 2003; Kelleher et al., 1994; Kettinger, Nair & Schuler, 2000; Miller, Smyth & Mudar, 1999; Murphy et al., 1991; Sheridan, 1995; Tyler et al., 1997).

As a result, research that is focused on decreasing the threat of child abuse and neglect must also assess the extent to which a parent's alcohol or drug abuse may be an influencing factor. The following represent a number of substance abuse variables that will be examined in this study.

3.7.2.1 Poly Substance Abuse

Studies on drug usage patterns have often implied that the use of more substances, particularly illicit drugs, pose more adverse consequences. Dore & Doris (1998) reported that caregivers who abused alcohol were more likely to complete treatment and maintain sobriety longer than users of multiple drugs. According to Wolock & Magura, (1996) the abuse of both alcohol and illicit drugs is the strongest predictor of re-referrals to child welfare. Poly drug use involving the concurrent use of various drugs can exacerbate the negative consequences associated with substance use in general.

Among substance abusing caregivers, some studies found a higher incidence of poly substance abuse (Sheridan, 1995; Nair et al., 1997; Tyler et al., 1997). Though less

drug use is likely to be better, it is difficult to discern the extent of substance abuse among substance abusers that often minimize and deny their use. Amid parents involved with child welfare because of child abuse and neglect, the extent and nature of their substance abuse is virtually unknown. Yet, when considering the adverse consequences that substance abuse poses to their children, it warrants further attention.

3.7.2.2 Predisposition

A plethora of studies have established that predisposition to alcohol or drugs can induce one's own use.(Marcenko & Spence, 1995). The National Institute of Health (NIH, 1998) found that among alcohol dependent women in one study, 56% were predisposed to a parent's drinking. Sheridan (1995) reported that 54% of those sampled, had prior exposure to a family member's substance abuse. Carten, (1996) suggests that even though 85% of mothers with alcohol or drug abuse reported drug addiction in the family, predisposition to alcohol or drug abuse has been the object of little research among parents involved with child welfare. According to Caudill et al., (1994) the exact nature and role that genetic influence has in the course of substance abuse remains inconclusive.

3.7.2.3 Significant Other Use

Though substance abuse among women is multi-determined, studies have found that the incidence of alcohol or drug use tends to be higher among women with a substance abusing spouse or paramour. Gregoire and Schultz (2001) found that over half of the sample, reported being involved with a person who abused alcohol or drugs. While

the research is clear regarding the influential role of significant-other drug abuse, none of the studies in this review established causality.

3.7.2.4 Prior Treatment

There are limited findings with regard to prior treatment among substance abusers. However, Gregoire & Schultz, (2001) found that among parents who abused alcohol or drugs, a history of prior treatment was associated with the continued usage of substances even after treatment. It is likely that persons with a prior treatment history could have progressed further in their drug use and require a more intensive intervention. Determining if a mother has had prior treatment may help to formulate a more appropriate treatment plan, particularly if a mother has previously engaged in multiple treatment episodes.

3.7.2.5 Prenatal Substance Abuse

Prenatal substance abuse poses serious threats to the children of mothers with substance abuse disorders. The adverse effects of prenatal substance abuse have been the object of extensive research (Azuma & Chasnoff, 1993; Brooks & Barth, 1998; Carta et al., 2001; Jaudes, Ekwo & Van Voorhis, 1995; Kienberger & Ekwo, 1995; Lewis & Giovanni, 1997; McNichol & Tash, 2001; Miller, Smyth & Mudar, 1999; Murray, Baker & Lewin, 2000; Nair et al., 1997; Pajulo et al., 2001; Potocky & McDonald, 1996).

Though prenatal substance abuse is not a predictor of substance abuse, it is a predictor of child abuse and neglect. It has contributed immensely to the growing incidence of child maltreatment cases, particularly those that result in foster care placement (Azzi-Lessing & Olsen, 1996; Berger & Waldfogel, 2000; Bishop et al., 2001;

CASA, 1999; Clark, 2001; Dore et al., 1995; Famularo, Kinscheff & Fenton, 1992; Lewis & Giovanni, 1997; Nair et al., 1997; Resnick et al., 1998; Takayama, Wolfe & Coulter, 1998).

Albeit the growing incidence and incisiveness of prenatal substance abuse among child welfare involved mothers, few studies have examined these phenomena in tandem. Furthermore, no research has discerned the extent that prenatal substance abuse vs. postnatal substance abuse has contributed to child abuse and neglect. This research will determine the extent to which prenatal vs. postnatal substance abuse has contributed to child abuse or neglect among the study group. Establishing these patterns can be useful to child welfare worker training and the development of future intervention programs for these women and their children.

3.7.3 Associated Factors

In discerning the predictors of substance abuse and CAN, most studies agree that it is a multi-causal phenomenon, suggesting that there are many factors associated with substance abuse. Several variables were identified and were classified under parental characteristics and substance abuse factors while the following discussion pertains to three other associated factors: childhood victimization, criminal justice involvement and domestic violence.

3.7.3.1 Childhood Victimization and Abuse Type

Since the early seventies (Belsky, 1993), childhood victimization has been identified as a potential risk factor for substance abuse particularly among women (Barth, 2001; Downs & Harrison, 1998; Fieg, 1998; Dube et al., 2001; McMahon & Luthar,

1998; Miller, Symth & Mudar, 1999; Mullings, et al., 2004; Ravndal et al., 2001; Sawyer et al., 2002; Schuck & Widom, 2003; Sidebotham & Golding, 2001; Wilsnack et al., 1997; Young & Gardner, 2000). A well established relationship has been found among both clinical and population studies (Wilsnack, Wilsnack & Hiller-Strurmhofel, 1994), lending support to the need to explore adverse childhood experiences in the understanding of the etiology of substance abuse among women (Millar & Stermac, 2000).

Medrano et al., (2002) found a high incidence of childhood maltreatment in a community-based sample of individuals with substance abuse issues. Women in the sample had higher levels of psychological distress. Tyler et al., (1997) found that reported childhood abuse consisted of 29% physical abuse and 41% of sexual abuse among women with alcohol or drug abuse experiences. Childhood abuse is common among many women with substance abuse related problems (Westermeyer et al., 2001).

In some studies that included a large sample of 1,099 women (Wilsnack et al., 1997), the results suggested that childhood sexual abuse is a strong predictor of substance abuse (Sheridan 1995; Wallen, 1998). In a large probabilistic sample of 7,103 parents, researchers found that substance abuse and depression were associated with child physical abuse and neglect (Chaffin, Kelleher & Hollenberg, 1996).

According to Belsky (1993), even though few studies have empirically substantiated this association, the results have been based on well-designed prospective studies. Still, the effort to establish the extent of childhood maltreatment is subject to limitations, particularly, reporting biases. The sensitive nature of this type of information

can influence the respondent's failure to report the incident or the respondents may be fearful of the ramifications of full disclosure (Carten, 1996). For some abused women, the painful developmental trajectories evolving from childhood abuse may be unconsciously excluded from memory (Belsky, 1993). In either case, it is likely that reported childhood victimization among substance abusing women is underestimated.

3.7.3.2 Criminal Justice Involvement

The association between substance abuse and criminal justice involvement has been well established (Kettinger, Nair & Schuler, 2000; Nair et al., 2003). Thus it is not surprising that in the trajectory of drug abuse and addiction, the lives of substance abusers are often complicated with a series of bouts in the legal system (Albert, 2000, 2001). Hohman and associates (2003) found that over half of 678 substance-abusing women in their sample had some type of involvement with the criminal justice system. Involvement with the legal system can create a new set of stressors for substance abusing mothers. In order to more effectively address their needs, this aspect must be better understood.

3.7.3.3 Domestic Violence

Albeit research that has examined domestic violence (DV) together with child abuse and neglect (CAN) is still in its infancy, DV was included in this analysis to determine the extent of its effect on CP status. Some studies have suggested that the co-occurrence rates (between CV & DV) can range from 30% to 60% (Edleson, 1999b) however, Shepard & Raschick (1999) found an incidence rate of 71% of dual violence (CAN & DV) among child welfare involved families. Folsom, et al., (2003) examined

this dual relationship among child welfare involved parents. The study results determined that there was an association, although childhood victimization was a stronger predictor of child welfare involvement than domestic violence.

CHAPTER 4

METHODS

4.1 Overview

The research on parents with substance abuse issues that are involved with child welfare resulted in the identification of several variables that will be analyzed in this study. These specific variables have been linked to child abuse and substance abuse, particularly among women. Because substance abuse is a risk factor for child abuse and neglect there is a need to further understanding the underlying causes of substance abuse. While research has begun to look more critically at the co-existence of substance abuse and child welfare, no studies have examined the underlying factors of substance abuse among this growing population.

The aim of this research is to increase the knowledge of the factors that correspond to alcohol or drug use among mothers involved with CPS (CP status). The results will be further compared to a homogenous group of mothers with substance abuse disorders who are not involved with CPS (Non-CP status). It is anticipated that the results may provide information to increase knowledge regarding substance abuse activities among child welfare involved mothers. This information is fundamental to decreasing the child abuse and neglect that is triggered by a mothers alcohol or drug abuse experiences.

4.2 Research Question

The study is based on the following research question:

“What are the ecological correlates of child protective services involved mothers with alcohol or drug abuse disorders? Drawing from this question, the study will answer the following:

- What are the social or demographic characteristics of mothers with alcohol or drug abuse disorders who come to the attention of CPS in comparison with those that do not become involved with CPS
- What do the substance abuse indicators reveal about the sample?
- What do the associated factors reveal about the sample?
- Which of the covariates predict CP status?

4.3 Research Design

The study is based on an ex post facto design. This design allows for child protective services involvement to be verified prior to the examination of the predictor variables (Vogt, 1993). Ex post facto designs allow for causal inferences to be drawn “after the fact.” The study includes an analysis of the individual and related variables.

4.4 Study Site

The research was collected from case file data made available through the Tejas Recovery and Counseling Services, (TRACS) Inc. in San Antonio, Texas. TRACS is a private program that is licensed to provide substance abuse treatment through the Texas Department of State Health Services (formerly known as Texas Commission on Alcohol and Drug Abuse). The organization’s methadone maintenance program is accredited

through The Commission on Accreditation of Rehabilitation Facilities. Since its origination in 1996, TRACS has been providing supportive outpatient treatment to diverse individuals with substance abuse and substance dependence disorders.

In 2000, TRACS was awarded a grant from the Texas Department of Protective and Regulatory Services to provide treatment (where deemed appropriate) to CPS referred parents involved with child welfare due to child abuse or neglect. It was anticipated that in most of these cases, substance abuse had been a factor in the abuse. While the CPS referred parents included both men and women, this research focused exclusively on the CPS referred mothers who engaged in the treatment episode. A considerable number of these mothers had tested positive for illegal drug use during the delivery of their infant children.

4.5 Sample

The study is non-experimental and has used a purposive sample. The limited number of cases for the study, specifically mothers with substance abuse disorders who were involved with CPS, did not allow for a sampling frame from which to draw these cases. Furthermore, the data was limited to case studies of women in treatment in one supportive outpatient program located in San Antonio, Texas. A sampling frame on this population would include all CPS involved mothers with substance abuse disorders who may be involved in other very diverse treatment programs in the city. It would not be possible to access data from all these programs because of cost of such endeavors and time constraints.

While the use of a non-probability sampling technique is less reliable, the limited case studies available make probability sampling difficult to implement. Moreover, even with the most rigorous probability sampling methods, the sample will not fully represent a specific population and there will always be some sampling error to explain (Rubin & Babbie, 2005). In the use of purposive sampling techniques, Singleton & Straits (2005) note that one disadvantage to the use of these techniques is that researchers must have considerable knowledge of a population before a sample is drawn. This condition was met for the study as the researcher had ample experience and knowledge of the sample drawn for this research. Despite limitations of purposive sampling methods, one advantage is that it can be useful in identifying distinct differences or extremes between groups. Such results can generate hypotheses about the phenomenon under study (Rubin & Babbie, 2001).

Another important consideration with regard to sampling is determining sample size. In applied research, the specific sample size is important because of its effect on sampling error, effect size and statistical significance (Vogt, 1999). Sampling error refers to random error, statistical significance implies that the association between the variables is not attributed to chance (Singleton & Straits, 2005) and effect size is the strength of a relationship between two or more variables (Pedhazur & Schmelkin, 1991). One way to reduce sampling error and the probability of a Type II error is to have a larger sample, however, large samples can be costly and time consuming (Rubin & Babbie, 2001). In contrast, samples that are disproportionately small may lead to inaccurate results that may not be generalizable. All things considered, determining an appropriate sample size is an

important aspect to consider in the application of any research. There are several methods that have been used to determine an acceptable sample size.

One technique for determining sample size is to select a sample that reflects the population under study and consider the sampling error that is appropriate. The use of confidence levels and confidence intervals provide a rationale for determining an appropriate sample size. While the confidence interval shows how representative a sample is by providing an accepted margin of error, the confidence level is contingent on how certain you want to be that the sample is within confidence interval. According to Rubin & Babbie (2001), in some cases, increasing a sample once it reaches a certain size is not worth it.

Nonetheless, a standard confidence level of 95%, and a confidence interval of +/- 5%, would indicate that a sample size of at least 400 would be appropriate because this size reflects the point at which the reduction of sampling error is minimized (Rubin & Babbie, 2001). For this research, the investigator has determined the appropriate sample size by using statistical power analysis. According to Rubin & Babbie, (2005), statistical significance deals with the probability of a Type I error, while statistical power looks at a Type II error in the same way. Type II errors occur when the researcher fails to reject a null hypothesis that is false (Vogt, 1999).

Using widely accepted social science research practices, the investigator selected to apply a power level of 0.80. Using this power level, the statistical significance test is said to have an 80% chance of rejection of the null hypothesis, resulting in a 20% chance of a Type II error (Rosenthal, 2001). Another element that corresponds with power

analysis is the alpha level. The study has been set at the routinely acceptable 0.05 risk, which suggests that the null hypothesis has a 0.05 or 5% probability of being true (Ruben & Babbie, 2001). Finally, for the results to be meaningful, the effect size between the variables will have to be no less than 0.04.

As noted, the effect size pertains to the strength of the variables as determined by the corresponding statistics (Rosenthal, 2001). Through the use of Cohen's (1988) criteria, an effect size would be somewhere between small (0.2) and medium (0.5). Thus, the required sample size for the proposed research will be at least 99 cases for each group (Cohen, 1988). Because the proposed study will employ a study and comparison group, the total sample needed will be 198.

4.6 Data Collection and Ethical Considerations

As noted previously, the study relied on secondary data extracted from the records of the Tejas Recovery and Counseling Services, Inc. (TRACS), a private substance abuse treatment program co-founded by the researcher in 1996. In preparation for the proposed research, several meetings were initially held with the program stakeholders for discussion of the details of the study. Final approval for the research was provided in addition to some commitment of additional resources that may expedite the data collection process.

The researcher and a research assistant, who is also an MSW, collected the actual data. Prior to the data collection, training was provided to the research assistant on the ethical principles pertaining to confidentiality. In addition, all the data was coded so that there was no identifiable information and the privacy of the study participants (in case

records) was preserved. Neither the researcher nor the research assistant had any personal contact or interaction with any of the study participants. While the researcher was part owner of this program, most of her involvement with the program consisted mostly of administrative responsibilities and did not include any of the direct service work that may have compromised the integrity of this research. Thus, the study presented minimal harm to any case study participant.

4.7 Case Abstraction Form

For purposes of this study, a case abstraction form (see appendix) was developed to compile information on the variables that were the focus of this research. The data was abstracted from the program's psychosocial assessment, which was the primary data collection instrument used by the program. In most cases, information corroborated by other measures discussed in the next section. The researcher found that the case abstraction form was suitable for collecting the socio-demographic data for this study.

Numerous studies have utilized a case abstraction method for secondary data analysis (Besinger, et al., 1999; Carten, 1996; English and Marshall, 1999; Famularo, Kinscherff & Fenton, 1992; Gregoire and Schultz, 2001; Hohman, Schillington & Baxter, 2003; Kelleher et al., 1994; Potocky & McDonald, 1996; Rittner & Dozier, 2000; Sun et al., 2001). The case abstraction method is effective at minimizing self-report or social desirability biases as well as concern about self-incrimination on part of the sample

4.8 Measures

The program that provided the data for the study utilized various methods to establish substance abuse among its program participants. One instrument used was the

Substance Abuse Subtle Screening Inventory (SASSI). The measure enables the counselor to identify a person with a substance abuse problem, even in cases where the person may attempt to distort or minimize it. The test includes a listing of empirically developed items that contain 62 true and false questions to identify a person who exhibits dependency related behavior. In addition, the SASSI contains two subscales with face valid items on the use of alcohol, FAV, 12 items and face valid items regarding the use of other drugs, FVOD, 14 items (Savonlahti et al., 2004).

The SASSI is an empirically validated screening instrument that has wide utility in the field of substance abuse treatment. It is self administered and clients are generally given instructions with regard to completion of the instrument prior to administration. There are several advantages to the SASSI: 1) it includes decision rules that distinguish between the likelihood of substance abuse or substance dependence, 2) it contains separate profiles for men and for women, 3) it can account for client defensiveness, 4) it will rule out persons who are not substance dependent and 5) it screens for both alcohol and drug use, and, lastly, (6) there are other clinical implications that can influence treatment interventions (McNeece & DiNitto, 1998).

Albeit the SASSI is widely used in the substance abuse treatment field, it is only used for screening of the likelihood that a person has a substance related disorder. It does not substantiate substance abuse or substance dependence. Still, it has merit in that it has been empirically validated with diverse populations. In the cross validation of the SASSI, the samples have included members of minority groups and women, however, the

specific SASSI scales have not been correlated with age, sex, and socioeconomic status. Still the SASSI is likely to be effective with a wide range of clients.

In accordance with the SASSI instrument decision rules, aggregate scores determine whether a person either has a: (1) high probability of having a substance dependence disorder or (2) low probability of having a substance dependence disorder. Thus, the applicability of the SASSI instrument in this study was basically to ascertain the existence of a substance abuse disorder in both the study group and comparison group mothers. All the women in this study were found to possess a **low probability** of having a substance dependence disorder.

This probability made these women appropriate for treatment in a supportive outpatient context. Conversely, women who scored high in the probability of having a substance dependence disorder, were routinely referred to more intensive treatment such as inpatient or residential treatment. Thus, this instrument served to substantiate substance abuse among both the study and comparison group. The program utilizes other measures in conjunction with the SASSI to obtain a more accurate prognosis of substance abuse or dependence. In either case, individuals are not admitted to treatment if the results on their SASSI do not verify a tendency toward substance abuse or substance dependence.

4.9 Ecological Systems Based Assessment

The Psychosocial Assessment refers to a form used by the program counselors to collect comprehensive information on all individuals admitted for treatment. The initial development of the form was based on the Ecological model, the theoretical framework

that guided this study. Through the use of the Ecological model each case study was viewed from a multidimensional perspective that suggests that seldom do problems occur solely within individual or the environment. Rather, problems are generally influenced by a complex interplay of a multitude of factors (Hepworth, Rooney & Larsen, 2003). Recognizing that substance abuse is a multi-causal phenomenon, this approach has provided a more comprehensive explanation to the problem given that there are multiple pathways to substance abuse.

Belsky, (1993) also suggests that a complex issue such as substance abuse does not occur in a vacuum, but it is contingent on the interaction between the person and the environment. According to Cash & Wilkes (2003), the Ecological model is about considering the interplay of other systems such as the person or the family, as each is considered to be part of the larger environment. In application of the Ecological framework to understand the causes of substance abuse it is important to understand the interrelated factors that contribute to it. Thus, the mothers in treatment were assessed on multiple factors that included micro level variables such as parental features inclusive of age, ethnicity or education. Some of these were variables were considered risk factors for substance abuse.

Other variables represented mesosystems of social work practice. These included the interrelationships of the mothers with various systems such as social networks, employment, family, and the treatment program. Other mesosystem elements included the mother's home situation or the environmental context in which the mother resides. An example of these risk factors would be the number of children the mother has. The

counselors additionally generated information to further their understanding of cultural systems and institutions that may also contribute to the social problems affecting the mothers in treatment. These factors reflected some of the macro level dimensions of the Ecological model of social work practice. In general, the assessment reflected a constellation of factors that intrinsically and extrinsically affected what was happening with the client.

While the psychosocial assessment was basically the instrument used to generate information on the variables that may contribute to a mother's substance abuse, integration of an Ecological perspective results in an assessment that provides a more complete "snapshot" of those factors that may positively or negatively contribute to the problem. This aspect is crucial considering the complexity of substance abuse. It is by far a more effective method for understanding a problem, than relying on an intrapsychic method that is limited to one explanation (Cash & Wilke, 2003).

The psychosocial assessment was completed by a counselor in a semi-structured interview with the client prior to admission. Adhering to a strengths-based approach, the program counseling staff engaged the client as a partner in the helping process (Saleeby, 1997). Though the form is used to collect a substantial amount of information, only key variables identified in the literature as contributing to substance abuse were included in the study. Information on the psychosocial included: age, gender, ethnicity, employment history, marital status, and education, background on children and family, mental health history, history of abuse (physical, emotional or sexual), legal or criminal history and

substance abuse history. In coding of the actual data the lack of consistent information on drug usage history, made it impossible to include this data in the study.

More specific responses were obtained through the use of open-ended questioning in a semi-structured interview between the client and the counselor at the treatment site. To increase the reliability of the psychosocial assessment that was not an empirically validated instrument, the program utilizes trained interviewers (the program's professional counseling staff) to administer the instrument in a private office where confidentiality was assured. According to the program administrator, each counselor receives initial training on application of the assessment tool at the onset of employment. Staff supervisory meetings, staffing sessions, routine case file reviews and chart audits are formats that continue to be used to ensure the consistency of the data collected.

Substance abuse or dependency was additionally substantiated through the use of the Criteria for Substance Abuse or Substance Dependence established by the DSM-IV (American Psychiatric Association, 1994). As part of the assessment, the program counselors reviewed the criteria and completed the DSM Diagnostic Criteria form to establish substance abuse or substance dependence (See Table 3, Operationalization of Substance Abuse in the appendix). The prospect of substance abuse or dependency was often corroborated by other information that may have included reports by CPS case managers, family members or other agency representatives.

4.10 Reliability

It is important to recognize that in order for an instrument to be valid, it must be reliable (Williams, Unrau, & Grinnell, 2003). To ensure that the case abstraction form

(instrument) was reliable in providing consistency in the variables that are measured, steps were taken to establish interrater reliability. Since there were only two main data collectors, the researcher trained the research assistant on the instrument, while assessing the extent that the data collected by the research assistant was congruent to information collected by the primary researcher.

In addition, the researcher used a small sample and an additional data collector to further assess the reliability of the instrument. Neither of the data collectors was familiar with the data at this point. Each coder was then asked to use the case abstraction form to collect and code information from the psychosocial assessment on the study variables. In order to establish interrater reliability, the two independent raters, would need to show consistency in the coding using the same instrument. The results were compared and found to show a high degree of consistency between them.

4.11 Data Analysis Plan

The data collected on the case abstraction form by the researcher and a trained assistant, will be pre-coded for entry into SPSS/data entry for analyses. General descriptive and inferential statistics will be used to confirm the previously reported relationship between the predictor and criterion variables. Next, the sample will be divided into two sub-samples that will comprise the study and the comparison group.

Study group was used interchangeably with CP status or CPS involved and comparison group referred to Non-CP status. All the sampled cases represented mothers with substance abuse disorders. The descriptive statistics will compile profiles on the

aggregated data. Frequency distributions will be generated on all items to initially provide descriptive information on both groups.

One common objective of social research is to examine the relationship between variables (Rosenthal, 2001). In social work, a common statistical process that is used for this purpose is the chi-square statistic. Through the use of chi-square the researcher was able to determine differences between the groups. The fact that the study had access to secondary data that was mostly categorical makes this statistic appropriate for use in the study.

The study will examine a number of predictor variables suggesting the need for multivariate analyses and more specifically, logistic regression analysis. Multivariate statistical methods allow for the examination of three or more variables (Rosenthal, 2001). Logistic regression was selected because it is commonly used in social work for prediction purposes when the criterion variable is dichotomous. This type of analysis has become quite standard in situations where the outcome variable is discrete (Hosmer & Lemeshow, 2000). In the proposed research, the criterion variable is CP status whereas a response of “Yes” will verify the presence of child protective services involvement.

While logistic regression has features that correspond to linear regression and discriminant analysis, application of either of the latter statistical procedures requires that the variables be at the interval level (Weinbach & Grinnel, 2001). Logistic regression, however lends itself to statistical analyses of nominal variables. The logistic regression analyses can estimate the probability that a mother with a substance abuse disorder may be more inclined to be involved with CPS. Furthermore, in contrast to the other forms of

regression analyses, logistic regression does not require that a linear relationship exists between the variables. The existence of a linear relationship suggests constant change that is rarely possible in the real world (Weinbach & Grinnel, 2001).

CHAPTER 5

ANALYSIS AND FINDINGS

5.1 Introduction

The focus of this study was CPS involved mothers with alcohol or drug abuse disorders. The fundamental issues were: what are the differences in the social and demographic characteristics of women with alcohol or drug abuse disorders who are involved with CPS as compared to women with alcohol or drug abuse disorders who were not involved with CPS?; what is the relationship of the maternal characteristics to CP status?; what is the relationship of the substance abuse indicators to CP status?; what is the relationship of the other associated factors to CP status?; and to what extent do these factors predict CP status? With these questions in mind, the research focused on two key issues:

1. What are the ecological correlates of mothers with alcohol or drug abuse disorders who are involved with CPS?
2. What factors predict CPS status?

This chapter will begin with a discussion of the descriptive analysis on the sampled cases and discourse on any of the notable differences between the study and comparison group. It will be followed by a discussion on the variables that were found to

be significant in the bivariate analyses and conclude with the results of the logistic regression analysis.

5.2 Socio-Demographic Characteristics

Overall, the sample included 200 women that were actively engaged in a supportive outpatient treatment program between 2000 through 2003. Half of the sample represented mothers who were involved with CPS and the other half comprised a comparison group of mothers in treatment who were not involved with CPS. In order for a case to be considered for inclusion in the study, the following criteria had to be met: (1) the subject had to be female with one or more children; (2) the female had to have participated in the program's substance abuse treatment program for a minimum of three months and (3) the mothers in the study group had to have entered treatment due to a referral from CPS. Alternatively, the comparison group mothers had entered treatment through some other source or referral.

The majority the comparison group mother had been court ordered to treatment by some type of criminal justice mandate such as the Bexar County Supervision and Corrections Department (Probation), the Bexar County Personal Recognizance Bond Program (PR Bond) or the county's Treatment Alternatives to Incarceration (TAIP) program. Comparatively, few of the women had sought treatment on their own volition or as a result of a referral from another local program (i.e., Welfare to Work initiatives). Thus, it is safe to assume that the majority of the mothers were engaged in treatment involuntarily. This seems to be the trend in treatment.

Table 5.1

Social and Demographic Characteristics

Characteristics	Both Groups	CPS	Non-CPS
Mean Age	31	27	34
Ethnicity			
Anglo/White	25.0% (50)	23	25
African American/Black	5.5% (11)	9	7
Hispanic/Mexican-American	69.5% (139)	68	68
Marital Status			
Single(unmarried, widow)	47.0% (94)	48	46
Married	27% (54)	23	31
Divorced	12.5% (25)	10	15
Separated	13.5% (27)	19	8
Family Size			
One child	21.0% (42)	18	24
Two children	32.5% (65)	32	33
Three children	16.5% (33)	23	10
Four or more children	30.0% (60)	27	33
Education			
Less than high school	13.0% (26)	15	11
Some high school	33.5% (67)	46	21
GED	16.0% (32)	14	18
High School Graduate	19.5% (39)	21	18
Some College	12.5% (25)	4	21
Associate Degree	5.0% (10)	0	10
Other Degree	.5% (1)	0	1

Table 5.1 continued

Employment			
Unemployed	42.5 (85)	52	33
Employed full-time	37.5% (75)	29	46
Employed part-time	4.5% (9)	3	6
Temporary employment	1.0% (2)	1	1
Student	3.5% (7)	3	4
Housewife	8.5% (17)	10	7
Other (retired, disabled, etc.)	2.5% (5)	2	3
Means of Support			
Own Income	40.5% (81)	32	49
Significant Other Income	27.0% (54)	28	26
Parent's Income	11.0% (22)	16	6
TANF	10.5% (21)	11	10
Other	11.0% (22)	13	9

Another criterion for inclusion that changed as the coding process began was the length of time in treatment. While the initially plan was to identify and include cases of women who had completed the six month program in its entirety, this inclusion category became quite impossible to achieve due to the extreme high drop-out rate, particularly among the CP status group. Women in treatment have generally been reported to have many barriers that often lead to a high drop out rate (Lewis, Haller, Brank & Ingersoll, 1996). This sample was no exception. In fact, it was the experience of the agency administrators in the agency providing the data (TRACS), that the women in the study group had a higher dropout rate than those in the comparison group (Hoy, 2004, personal communication).

The low retention rates among the CP status women was unexpected. For one, even though the program had not been a provider of services to CPS prior to the year 2000, it had an extensive history of serving, almost exclusively involuntary client systems that had previously included CPS involved women. Secondly, for the CP status women, non-compliance with treatment or failure to complete treatment could result in temporary or permanent removal and placement of the woman's child or children. This prospect could additionally compromise any effort to regain custody of the women's children in cases where the children may already have been placed with relatives or in foster care. Table 1 compares the social and demographic characteristics of the study group and the comparison group, while the discussion that follows relates some of the key findings in the descriptive analyses.

5.2.1 Age

The mean age for both groups was 31 years, with a range of 17 to 55. The CP status mothers were younger, with the mean age of 29, compared to 34 years among the Non-CP status mothers.

5.2.2 Ethnicity

Overall, 69% (N=139) of the mothers were Hispanic. Twenty-five percent (N=48) were White and 5.5% (N=11) of the women were African American. There were no significant differences in the group comparisons. The higher number of Hispanic women in the sample may be representative of the city's own predominantly Hispanic population or the fact that the program was located in a largely Hispanic populated area. Still, these results reaffirm that most women involved with child welfare tend to be over-representative of women of color.

5.2.3 Marital Status

Some categories for marital status had few responses so these categories were collapsed into others. The category widow was collapsed with single/never married, while cohabitation was collapsed into the category of married. The findings showed that in the overall sample, 47% (N=94) were single, 27% (N=54) were married, 12.5% (N=25) were divorced and 13.5% (N=27) were separated.

5.2.4 Family Size

The average number of children for the entire sample was 2.62 children with a range of 1-8 children. Since the number of women who had over four children was small, this variable was collapsed into four or more children. Thirty percent of all the women had four or more children (N=60).

5.2.5 Education

Over half (53.5%) of the sample had at least a GED (N=107) while 18% (N=36) had some college. Due to the low frequency counts (<5) on some of the stratified categories, this variable was dummy coded as 1 = high school and 0 = no high school for the statistical analyses, thus mothers reporting less than high school were coded as 0; while mothers with at least a GED were coded a 1.

5.2.6 Employment

Due to the unavailability of data on income, assumptions were made about the sample's economic situation through data from the variable, employment status.

The frequency results showed that 43% (N=86) of the sample was employed. Of the employed mothers, seventy-five were employed full-time. Due to low frequency counts (<5)

on some of the stratified categories, this variable was dummy coded as 1 = employed and 0 = not employed for the final statistical analyses.

5.2.7 Means of Support

In the absence of a specific income measure, this variable was additionally used to make some inferences regarding the socioeconomic situation of the sample. Most 40.5% (N=81) of the sample reported their own income as the main means of support, 27% (N=54), relied significantly on other support, and 11% (N=22) on parental support. Contrary to public perceptions, only 10.5% (N=21) of the mothers relied on public assistance (TANF). Figure 5.1 illustrates the major categories included in the analysis of this variable.

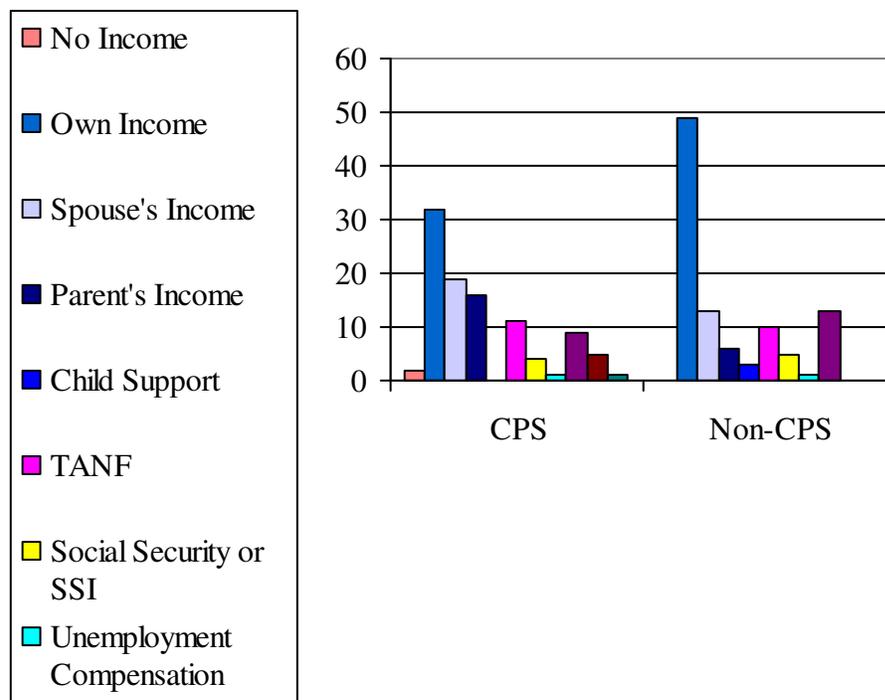


Figure 5.1

Reported Means of Support and Legend

5.3 Substance Abuse Factors

Descriptive analysis were used to measure the relationship between CP status and five substance abuse indicators: poly substance abuse, predisposition, significant other use, past treatment, and prenatal substance abuse (See Table 5.2). All of the substance abuse factors were dichotomized into “yes” or “no responses,” a “yes” response would suggest presence of the variable in question, and a “no” response would indicate absence. Poly substance abuse in the study referred to the extent that the sample reported the routine use of two or more drugs. A “yes” response to the variable, predisposition, indicated that there had been some family history of substance abuse in the respondent’s family of origin. Another key factor was significant other use. This variable assessed whether the respondent was involved with a person who abused alcohol or drugs at the time that they were admitted to treatment.

While the variable, past treatment provided some information on the extent to which the sample had previously engaged in substance abuse treatment, the data did not specify the number of past treatment episodes or type of prior treatment that may have been received. Still, it is important to consider that mothers who had a prior treatment episode may have been more progressed in their substance abuse. The last substance abuse factor was prenatal substance abuse. A yes response indicated that the respondent had at some point consumed alcohol or drugs while pregnant.

5.3.1 Poly Substance Abuse

Eighty three percent (83%, N=166) of the entire sample reported poly substance abuse. Even though drug use patterns varied in the sample, case records revealed that the most widely abused drugs included alcohol, cocaine, marijuana and heroin suggesting few

differences in the sample drug use. According to the program administrator, (Hoy, personal communication, 2004), “There are some women who use other drugs such as methamphetamines or crack, but for the most part, these drugs are not as widely abused by female clients in treatment. These women seem to have more problems with cocaine abuse.

Table 5.2

Substance Abuse Related Factors

SUBSTANCE ABUSE FACTORS	BOTH GROUPS N=200	CPS N=100	NON-CPS N=100
Poly Substance Abuse			
No Poly Substance Abuse	17.0% (34)	13	21
Poly Substance Abuse	83.0% (162)	87	79
Predisposition			
No Predisposition	41.0% (82)	36	47
Predisposition	58.5% (117)	64	53
Family User			
No family user	41.5% (83)	36	47
Father/Stepfather	23.0% (46)	26	20
Mother/Stepmother	9.0% (18)	9	9
Both Parents	6.0% (12)	6	6
Multiple family users	10.5% (21)	15	6
Significant Other Use			
No Significant Other Use	40.0% (80)	36	46
Significant Other Use	60.0% (120)	64	54
Past Treatment			
No Past Treatment History	70% (140)	82	58
Past Treatment History	30% (60)	18	42
Prenatal Substance Abuse			
No Prenatal Substance Abuse	81.0% (162)	67	95
Prenatal Substance Abuse	19.0% (38)	33	5

5.3.2 Poly Comparison

More women in the CPS status group reported poly substance use 87 to 79 than the comparison group women. As denoted by Figure 5.2, differences were slight.

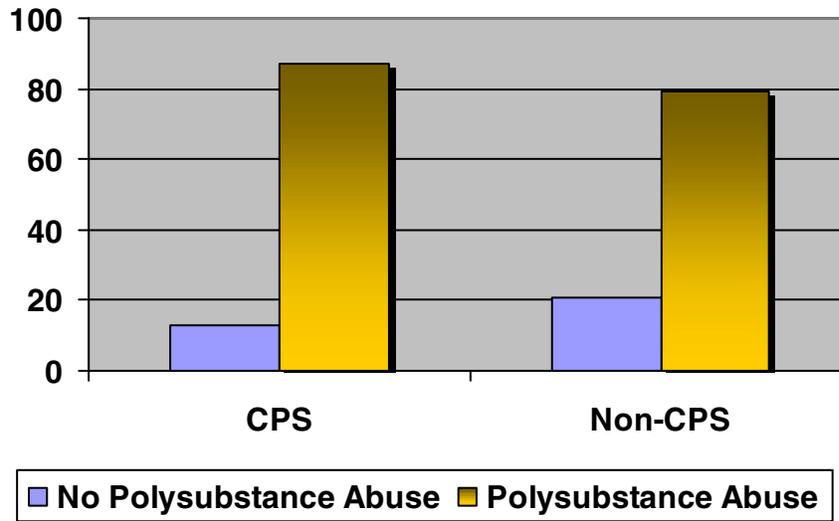


Figure 5.2

Poly Substance Abuse in CP Status and Non-CP Status

5.3.3 Predisposition

Fifty-nine percent (59%, N=118) of the mothers reported being predisposed to substance abuse. Predisposition was determined through self-reported information that was often corroborated from other collateral sources. The treatment program administrators emphasized that the counselors often use various skills during the assessment process to ensure accuracy and consistency of the information that was collected. Over half of the mothers reported living in homes where substance abuse had been a factor.

5.3.4 Family User

Some studies have suggested that having a parent who is a user can have adverse effects, particularly when children are exposed to a mother's alcohol or drug use and so this variable was included in the statistical analyses. The findings revealed that 58.5 (N=117) of all the mothers identified a family user. The majority of the women identified their fathers as the primary user (23%, N=46).

5.3.5 Significant Other Use

Sixty-percent (60%, N=120) of the mothers reported significant other use suggesting that most were involved relationships with persons who used and/or abused alcohol or drugs. Although it may have been useful to distinguish substance use from substance abuse, this information was missing from the case file data and any attempt on our part to ascertain the extent of significant other use, would have been speculative at best.

5.3.6 Significant Other Use Comparison

The study group reported more (N=64) significant other use (*See Figure 5.3*) than the comparison group mothers (N=54). Considering that women that are involved with male users of alcohol or drug substances, are at a higher risk for their own substance abuse, this aspects warrants further attention.

5.3.7 Past Treatment

The factor of prior treatment has often been associated with substance abuse. In this study, thirty percent (30%, N=60) of all the mothers in the case study data had received prior treatment for a substance abuse disorder. Type of past treatment received was not determined.

5.3.8 Prenatal Substance Abuse

Prenatal substance abuse was reported by 19% (N=38) of the entire sample. Eighty-one percent (81%, N=162) of the sample reported no prenatal substance abuse, suggesting that in the course of their lifetime, they had not consumed alcohol or drugs during pregnancy.

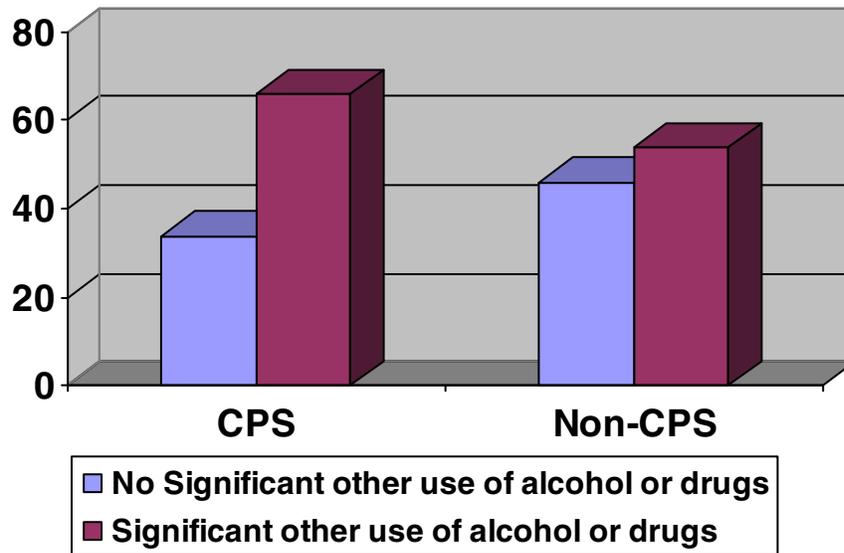


Figure 5.3

Significant Other Use Among CP Status and Non-CP Status

5.4 Associated Factors

To further increase the issues affecting women involved in child protective services, several other associated factors were examined (Table 5.3). These included: childhood victimization, abuse type, perpetrator, criminal justice involvement and domestic violence. The response of “yes” for childhood victimization indicated that the subject had reported being victimized or abused during their childhood. The factor, abuse type sought more specific information with regard to the type of abuse experienced by the respondent. Abuse

types included sexual abuse, physical abuse, and emotional abuse or neglect. In the same way, the variable, *perpetrator*, pertained to the identification of the abuser. *Criminal justice involvement* was a variable that established whether the sample had been involved in the criminal justice system.

If there was any history of being incarcerated for any reason, the response would be “yes.” There were several other categories including history of jail incarceration only and history of prison incarceration that were used to distinguish those mothers who had been to prison from mothers who had only been incarcerated in a jail. However, this variable was later dicotomized into 0=No CJ Hx; 1=CJ Hx. The other associated variable to be included in the study was *domestic violence*. This variable determined if the respondent had ever experienced any type of domestic violence with a significant other. Domestic violence has been found to be a correlate of child abuse and neglect in child maltreatment research. It is also a co-curing phenomenon in some families contending with substance abuse. The results on these factors are presented in Table 5, and a discussion follows

5.4.1 Childhood Victimization

In the sampled women, 39.5% (N=79) reported having been victimized in one form or another during childhood. However, the occurrence of childhood victimization reported was higher among the CP status group, (N=50) than the Non-CP status group (N=29).

5.4.2 Abuse Type

In the aggregated results, 61% (N=121) reported no abuse. Among mothers that were abused, most, 17% (N=33) reported experiencing combined forms of abuse during childhood, followed by 14.5% (N=29) reporting sexual abuse. Since there were very few categories for

neglect, it was combined with neglect. Nine percent of the mothers in the case study data reported being physically abused.

5.4.3 Perpetrator

Data on the perpetrators of the abuse revealed that most of the sample identified a parent as the abuser (20.5%, N=41). Interestingly, most of the women represented in the sampled cases, identified more mothers as abusers (10%, N=20), than fathers (6.0%, N=12). More CP status mothers reported mothers as abusers (N=13) than Non-CP status mothers (N=7), and more study group mothers had multiple perpetrators. None of the comparison group mothers reported having multiple perpetrators of abuse.

5.4.4 Criminal Justice History

Well over half of the sample (65%, N= 131), reported having been involved with the criminal justice system in some form. However, over half (N=54) of the CP status mothers had no prior involvement with the criminal justice system compared to 15 of the Non-CP status mothers.

5.4.5 Domestic Violence

In determining the extent of DV, case study data revealed that 41.5% (N=83) of all the mothers in the sample reported having experienced DV. Group comparison results showed that there was more domestic violence among CP status involved mothers (N=52) than Non-CP status mothers (N=31).

Table 5.3

Associated Factors of Substance Abuse

ASSOCIATED FACTORS	BOTH GROUPS N=200	CPS N=100	NON-CPS INVOLVED N=100
Childhood Victimization			
No Childhood Victimization	60.5.0% (121)	50	71
Childhood Victimization	39.5% (79)	50	29
Type of Abuse			
No history of abuse	61.0% (121)	51	70
Physical Abuse	4.5% (9)	5	4
Emotional/Neglect	4.0% (8)	4	4
Sexual Abuse	14.5% (29)	20	9
Combined Forms of Abuse	17.0% (33)	20	13
Perpetrator			
No Perpetrator	60.5% (121)	49	72
Father/Stepfather	6.0% (12)	6	6
Mother/Stepmother	10.0% (20)	13	7
Both Parents	4.5% (9)	5	4
Other Relative(s)	5.5% (11)	6	5
Non-relative(s)	7.0% (14)	8	6
Multiple Perpetrators	6.5% (13)	13	0
Criminal Justice History			
No Criminal Justice History	34.5.0% (69)	54	15
Criminal Justice History	65.5% (131)	46	85
Domestic Violence			
No Domestic Violence	58.5% (117)	48	69
Domestic Violence	41.5 (83)	52	31

5.5 Bivariate Results

To examine potential differences among the CP status mothers and the Non-CP Status mothers, at baseline (admission to treatment) separate chi-square tests were used to test for independence on all the variables except age. Since age was not categorical, a two-tailed t test was used to test for significance. In bivariate analyses, the chi-square statistic detects a

significant association between two categorical variables; however it does not determine the strength of the relationship. The phi coefficient measures the strength of an association between nominal variables and it was used with the categorical predictors found to be significant in the bivariate results. Phi is a commonly used statistic with categorical data and it serves as an excellent alternative to the odds ratio (Rosenthal, 2001).

In all of the analyses, a significance level of $<.05$ was applied (two-tailed). In Table 5.4, the question tested was whether the CP status group mothers and the Non-CP status group mothers were homogenous with respect to individual and contextual factors (age, marital status, ethnicity, family size, education, means of support and employment). The null hypothesis assumed no differences.

Table 5.4
The Relationship between CP Status and the Demographic Factors

Variables	χ^2	d f	p	phi	
Marital Status	5.179	5	<i>ns</i>		
Ethnicity	.883	2	<i>ns</i>		
Family size	6.594	3	<i>ns</i>		
Education	16.862	1	$<.001$	-.290	
Means of support	8.962	4	<i>ns</i>		
Employment	8.160	1	$<.01$	-.202	
Age	<u>Range</u>	<u>Mean</u>	<u>SD</u>	<u>T value</u>	<u>r</u>
	17-55	31	8.71	-.5.92*	-.39**

ns, not significant.

* $p = <.05$

** $p = <0.01$

The CP Status mothers were not significantly different from the Non-CP status mothers on all the socio-demographic variables; however significant differences were found

on three variables, age, education and employment. Age was found to be a significant correlate, ($r=-.39$, $p <.0.01$) in predicting CP status indicating that younger mothers (or mothers reporting less years) had a greater likelihood of being classified with a CP status ($t = -5.92$, $p<.05$). Almost twice as many mothers in the CP status group ($N=70$) were under thirty years of age compared to the Non-CP status mothers ($N=34$). The study results fit logically with other research in case control and cross-sectional studies that have found an association with age and child maltreatment, whereas younger mothers are more likely to abuse or neglect their children, than older mothers.

The variable education additionally had a statistically significant, $X^2 (1, N=200) = 16.862$; $p < .001$, but moderate ($\phi=-.290$) relationship with CP status. When squared the phi score indicated that education accounted for 0.17% of the variance in CP status leaving 83% to be accounted for by other variables. Still, the statistically significant finding on education indicated that mothers with more education are less likely to come to the attention of CPS. Therefore, the less education a mother had, the more likely that she would have a CP status. These results verified that the lack of education is a correlate of CP status and a risk factor for child abuse and neglect among mothers with alcohol or drug abuse disorders.

While various values were initially developed for the variable employment (a measure of a mother's socio-economic situation), the variable was dummy coded to 1=Employed and 0=Unemployed in the final analyses. The results were statistically significant and indicated that mothers who were employed were less likely to have a CP status, $X^2 (1, N=200) = 8.160$; $p < .01$, although this relationship was moderately weak ($\phi=-.202$) and accounted for only .04% of the variance. Almost twice of the CP status

mothers were unemployed (N=67) compared to the Non-CP status mothers (N=33). This raises some concerns as unemployment may be intrinsically linked to poverty and poverty is a well-established correlate of child abuse and neglect.

The second set of study covariates were the substance abuse indicators (Table 5.5). These included: poly substance abuse, significant other use, past treatment, predisposition, family user and prenatal substance abuse. Considering that all the mothers in the case study data had been clinically diagnosed with a substance abuse disorder, these indicators were essential to furthering our understanding of their ability to predict CPS involvement among mothers with alcohol or drug abuse disorders.

In the results, two of the substance abuse factors were statistically and significantly associated with CP status: past treatment, $X^2(1, N=100) = 13.714$; $p < .001$ and prenatal substance abuse $X^2(1, N=100) = 25.471$; $p < .001$. Past treatment explained .05% of the variance and was negatively associated with the criterion variable ($\phi = -.262$) indicating that mothers who had prior treatment were less likely to have a CP status. An even stronger ($\phi = .357$) and more significant relationship that accounted for 0.13% of the variance was found for prenatal substance abuse. The use of drugs prenatally was more of a problem among the CP status mothers, (N=33, vs. 5). A number of the CP status mothers had entered the treatment program due to prenatal substance abuse; however fewer of these mothers had received prior substance abuse treatment. This particular finding supports the growing body of research that has heralded maternal substance abuse as the leading factor in the vast number of children in state custody.

Table 5.5

The Relationship between CP Status and the Substance Abuse Factors

Variables	χ^2	df	p*	phi
Poly substance abuse	2.268	1	<i>ns</i>	
Significant other use	3.000	1	<i>ns</i>	
Past treatment	13.714	1	<.001	-.262
Predisposition	2.492	1	<i>ns</i>	
Family user	8.117	5	<i>ns</i>	
Prenatal substance abuse	25.471	1	<.001	.357

ns, not significant.

*p = <.05

** p = <0.01

The final covariates examined in the bivariate analyses were the associated factors (Table 5.6). These included a number of variables (childhood victimization, type of abuse, perpetrator, criminal justice involvement and domestic violence) that have been found to be associated with CAN and substance abuse. The results illustrated in Table 8, indicate that four factors had a statistically significant effect: childhood victimization, perpetrator, criminal justice history and domestic violence.

Mothers who were victimized or abused as children $X^2(1, N=100) = 9.227; p < .01$ and in their adult life $X^2(1, N=100) = 9.082, p < .01$ were more likely to have a CP status. The strength of association of both predictors was rather small as denoted by the phi coefficient that explained approximately .05% of the variance. Thus, mothers who experienced childhood or adult abuse were more likely to have a CP status and abuse their own children. Having a CP status in this study implied substantiated cases of child abuse and neglect. This finding lent support to the vast number of studies suggesting that childhood abuse is a predictor of subsequent abuse.

Table 5.6

The Relationship Between CP Status and the Associated Factors

Variables	χ^2	d f	p*	phi
Childhood victimization	9.227	1	<.01	.215
Perpetrator	19.660	6	<.001	.314
Type of abuse	8.752	4	<i>ns</i>	
Criminal Justice Hx	33.65	1	<.001	-.410
Domestic Violence Hx	9.082	1	<.01	.213

ns, not significant.

*p = <.05

** p = <0.01

The variable perpetrator (of the mother's childhood abuse) was a highly significant X^2 (6, $N=100$) =19.660; $p < .001$, and moderately strong ($\phi = .314$) correlate of CP Status. The variable perpetrator accounted for 0.10% (ϕ coefficient squared) of the variance for CP status. The results signify that having a perpetrator (as reflected in the stratified categories in Table 5) was a predictor of CP status. Furthermore, having a perpetrator implied being abused and coincided with the statistical significance of childhood victimization found in this study. Although most of the mothers identified a parent as the main perpetrator, CP Status mothers experienced more abuse by their own mothers ($N=13$) and by multiple perpetrators ($N=13$).

Being involved with the criminal justice system was statistically significant, X^2 (6, $N=100$) =33.654; $p < .001$ and strongly associated with CP Status. However, it is important to note that even though the results show that having some type of criminal justice experience was predictive for CP status, most of the mothers in the comparison groups were comprised

of women who had initially been referred to treatment by one of the city's criminal justice organizations such as the local probation office. The phi coefficient was negative ($\phi = -.410$) indicating that mothers involved with criminal justice were less likely to be involved with CPS. Having some type of criminal justice system history explained .08% of the variance for CP status. The growing tendency for mothers with alcohol or drug disorders to be involved with criminal justice was found to be true for the comparison group mothers, however, this pattern did not hold true for the CP status mothers in this study. Almost twice ($N=85$) as many of the comparison group mothers had some type of criminal justice history when compared to the study group mothers ($N=46$).

5.6 Multivariate Analysis

5.6.1 Multicollinearity

Multicollinearity exists when there are inter-correlations among the predictor variables so it should be used prior to multivariate analyses. Correlated predictor variables make it difficult to discern the individual effects on the dependent variable and are cause for concern (Pedazhur & Schemelkin, 1991). To rule out this possibility, two statistical methods of linear regression were used to identify the presence of multicollinearity: tolerance and variance inflation factor (VIF). Multicollinearity is determined when a tolerance value is less than .1 or when the VIF is greater than 10 (Fields, 2005). When the presence of multicollinearity is found, one can drop the problematic variable from the equation. One variable (age) identified in Table 9 had a tolerance statistic of less than .1 and a VIF statistic greater than 10. The variable age was dropped from the equation and the collinearity test was run again with the results showing no recurring collinearity problems.

5.6.2 Logistic Regression Results

Following the bivariate analysis, and the test for multicollinearity, a logistic regression was conducted to examine the extent to which the independent variables could predict the dependent variable, CP Status. Logistic Regression is a model that predicts the probability of an event occurring. The predictors that were placed in the logistic equation were those that were found to be significant in the bivariate analysis. Eight predictor variables were included in the logistic model: education, employment, past treatment, prenatal substance abuse, childhood victimization, perpetrator, criminal justice history and domestic violence. The dependent variable, CP status was dummy coded with 1 being the mothers involved with CPS and 0 being Non-CPS. The overall sample size for the logistic regression analysis was 200.

A stepwise logistic regression method was used for this study because the stepwise method is better for exploratory model building (Field, 2005). According to Menard (1995) logistic regression is an appropriate statistical procedure when the correlates of new phenomena are not fully understood. Furthermore, logistic regression is a widely accepted statistical method for use with a dichotomous dependent variable and categorical data in general. This was a major deciding factor as all but one (age) of the study variables were categorical. The variable age was excluded from further analysis due to multicollinearity.

The regression results indicated that overall, the model correctly classified 50% of the CP status cases. The residual chi-square statistic was 4.226 $p < .001$ suggesting that the coefficients for the variables not in the model were significantly different than zero and adding any of these variables to the model would affect its predictive power (Fields, 2005).

To compare the difference of the model when only the constant was included, the log-likelihood of the new model was subtracted from the baseline model, (277.259-202.831), the difference being, 74.428, $p < .001$, indicating that the model is predicting CP status much better than it was with only the constant included. The new model can predict CP status in the data 75.5% of the time.

The initial logistic regression analysis included eight predictor variables that were found to be statistically significant in the bivariate analysis. Three variables (childhood victimization, domestic violence and employment) were eliminated by the model. Overall, the regression results indicate that the model of 8 predictor variables was significantly better in predicting CP status from Non-CP status (-2 Log Likelihood = 202.831; $X^2=74.428.583$, $p < .0001$). The results are presented in Table 5.7.

As noted in the final model, five factors were found to be significant in predicting CP status. The first factor, education was significant in predicting the substantiation of CP status (Wald = 15.093, $p < .000$). The Exp(B) value is even more important statistic and an indicator of the change in odds that result from a unit change in the predictor (change in odds). As the variable, education increased by one unit (or perhaps one year in this case), the mothers were .6 times more likely to be classified as CP status. Accordingly, if predictor increases, the odds of the outcome variable increase.

The second significant predictor that substantiated CP status was past treatment (Wald = 6.492, $p < .008$), or having received prior treated for substance abuse. Past treatment had a negative association with the criterion variable, thus for a one unit increase in past treatment, the mothers were .37 more times less likely to be involved with CPS.

Prenatal substance was the third predictor and it made the most significant contribution to the model in predicting CP status (Wald=11.035, $p < .001$). The results indicated that as a mother's substance abuse during pregnancy increased by 1 (incident), they were 6.2 times more likely to be classified as CP status. This variable was more predictive and had a stronger, statistically significant and substantive relationship with CP status.

A fourth factor that predicted CP status was perpetrator (Wald = 6.887, $p < .009$). Perpetrator was the identified abuser of a mother's childhood abuse or neglect. As the perpetrators increased by 1, the mothers were 1.1 times more likely to have a CP status.

The final factor that was found to be a significant predictor of CP status, was criminal justice history, however, this variable had an inverse relationship with the criterion variable. This indicated that for every 1-unit increase in criminal justice history or involvement, there was a less likelihood that a mother would be classified into a CP status.

Table 5.7

Logistic Regression on the Criterion and Significant Predictors

Variables	B	SE	Wald	d f	Sig.	Exp (B)	95% Confidence Interval
Education	-.504	.130	15.093	1	.000	.604	.468 -.779
Past Treatment	-1.000	.380	6.942	1	.008	.368	.175 -.774
Prenatal Substance Abuse	1.829	.550	11.035	1	.001	6.225	2.116 - 18.308
Perpetrator	.115	.044	6.887	1	.009	1.122	1.029 - 1.222
Criminal Justice History	-.216	.084	6.586	1	.010	.806	.684 -.950

CHAPTER 6

DISCUSSION

6.1 Introduction

The purpose of this study has been to examine the ecological correlates of CPS involved mothers with substance abuse disorders. The study relied on secondary data collected over a three-year period by a substance abuse treatment program established in San Antonio, Texas. This chapter will begin with a discussion of the study limitations, a summary of the key findings and the implications and recommendations for social work practice, policy and research.

6.2 Limitations of the Study

As with any applied research, to accurately interpret the results, the limitations must be considered. Initially, the study relied on secondary data that was collected by licensed counselors using various data collection instruments including a psychosocial assessment that served as the primary instrument for data collection. Even though the form was well designed, comprehensive and reflective of the Ecological content, it was not a standardized instrument, but rather one that had been developed for exclusive use by the program. This may have caused some biases due to the overuse of open-ended responses and the counselor's own subjective interpretation. To add to this, the study data

was limited almost exclusively to categorical variables that were dichotomized, thus limiting the type of statistics used and analyses in general.

Further, difficulties with recall, social desirability or unwillingness to disclose sensitive information may have resulted from the reliance of self reported information. In addition, the small sample may have limited the statistical power of the analysis. In cases where low expected frequency counts occur, the power of the significance test could be decreased, however, the study relied on a 95% confidence level. Still, an alternative solution could be to increase the sample size, but the timing constraints and a lack of study group cases ruled out this option.

Another sample related problem was that the case study data had been drawn from women who were active in a supportive outpatient treatment program due to substance abuse and half of the sample (study group cases) was involved with CPS. Therefore, the results may not hold true for other women with substance abuse disorders who may not be in treatment within a supportive outpatient treatment context or women in treatment, but not involved with CPS. These factors suggest the need to interpret these findings with caution.

Another important constraint to the study was the unintended exclusion of variables that may have been more useful in defining or differentiating the substance abuse patterns and trends among both the study and comparison group. Examination of drug use factors such as the onset of drug use, specific drugs used, frequency, length of use and the specific methods of ingestion may have provided a more thorough and chronological account of the women's drug use patterns. However, missing data and

general inconsistencies in the data set, hindered the further exploration of these factors. Nonetheless, it was clear that most of the mothers in the sample used multiple drugs concomitantly. All things considered, the interpretation of the study results should be considered in the context of these limitations.

6.3 Discussion of the Findings

This study was based on one major research question and several other key sub-questions (See Chapter 5). The findings will be discussed in relation to these questions and the previous research.

Question 1: What are the social and demographic characteristics of mothers with alcohol or drug abuse disorders who come to the attention of CPS in comparison with those that do not become involved with CPS?

The CP status mothers and the Non-CP status mothers were very similar in their basic characteristics however; the study group mothers were younger than the comparison group. These results substantiated that younger mothers are more likely to come to the attention of CPS. Furthermore, CP status mothers were less educated and less likely to be employed than the Non-CP status mothers.

Since the CP status mothers reflected in the study had been referred to treatment due to child abuse or neglect, this finding supports the research that has linked age to child maltreatment (Chaffin, Kelleher & Hollenberg, 1996; Donahue, 2004; Dukewich, Borkowski & Whitman, 1999; Murray, Baker & Lewin, 2000; Nair, et al., 1997).

Among women with alcohol or drug disorders, being younger has also been linked to neglect, (Gregoire & Schultz, 2001; Sidebotham & Golding, 2000; Sun et al., 2001). In

effect, mothers with substance abuse disorders are more likely to neglect their children than to inflict other forms of abuse.

When examining the ethnic composition of the sampled mothers, the results found no significant differences, except that the overall sample was overrepresented by Hispanic women. While various factors (that have been previously explicated) can account for the larger number of Hispanic women, the finding coincides with the existing research that has expounded on the disproportionate number of minority women entangled in the nation's child welfare system. Beyond this aspect, ethnicity remains relatively unexplored in the child welfare literature. Still it is important to consider that racism has been a factor in increasing number of minority women who continue to be targeted for toxicology screens that often result in a child welfare intervention. Considering that women of color constitute the majority of mothers in child welfare, this phenomenon warrants further attention.

There were a higher percentage of single parents among the CP status mothers than the Non-CP status mothers. The social and economic constraints associated with single-headed households or a single parent status have been well-documented and continue to be a risk factor for the mothers involved with child welfare. When examining family size, both groups reported to having approximately the same amount of children, however, more of the comparison group mothers reported having four or more children. It is likely that being older may be associated with having more children.

Question 2: What do the substance abuse indicators reveal about the sample?

The results on the various indicators of substance abuse that were examined in the study showed that both groups had a high incidence of poly substance abuse indicating that all the mothers engaged in the use of multiple drugs concomitantly. In terms of having a family history of substance abuse, more of the study group mothers reported being predisposed to substance abuse. Even though the indicator significant other use was not found to be statistically significant, the study results have shown that when women are involved with men who use alcohol and/or drugs there is a higher prospect of CP involvement. A higher percentage was reported by the study group mothers (64%) than the comparison group mothers (54%). Significant other use is an important factor that has often been identified in the substance abuse literature as contributing to the drinking or drugging patterns of women in general.

Gregoire & Schultz (2001) reported that over half of the sampled child welfare involved mothers were involved with other substance abusers. Being in a relationship with a substance abusing spouse or paramour has been found to influence a woman's own substance abuse. These women mirrored other women with alcohol or drug issues in this aspect. Clearly, these results emphasize the need for treatment that is family focused, in place of the substance abuse treatment that has historically focused on the individual.

While it would have been meaningful to establish drug use patterns among the significant others involved with the women in the treatment program, the data available was limited to establishing significant other use or no use. Further, the researcher was unable to distinguish significant other use from abuse or dependency because this data

was simply not collected. Nonetheless, significant other substance abuse poses some risks for substance abuse and CPS involvement that warrants further examination.

Two of the remaining substance abuse indicators were significantly associated and predictive of a CP status: prenatal substance abuse and past treatment. Thirty-three mothers in the study group reported prenatal abuse compared to 5 in the comparison group. In fact, prenatal substance abuse was the strongest determinant of CP status.

This particular finding coincides with the vast research that has linked maternal substance abuse to child abuse and neglect (Azzi-Lessing & Olsen, 1996; Berger & Waldfogel, 2000; Bishop et al., 2001; CASA, 1999; Clark, 2001; Dore et al., 1995; Famularo, Kinscheff & Fenton, 1992; Lewis & Giovanni, 1997; Nair et al., 1997; Resnick et al., 1998; Takayama, Wolfe & Coulter, 1998). This finding also suggests that drug use during pregnancy continues to be a significant issue for child welfare.

In terms of past treatment, less of the CP status mothers received past treatment despite their drug abuse trajectories. Since most of the study data was self reported it could be that past treatment reports were underreported. Having had prior treatment for substance abuse could be conceived as treatment failure by CPS workers and reporting it could result in negative consequences for the CPS involved mother. Dore & Dore (1998) found that the most significant predictor of treatment success was whether a caregiver had past treatment. The lack of treatment may also suggest that these mothers have been absent from the treatment domain in general, until their involvement with CPS.

This is an important finding when considering that the CPS intervention could in fact serve as a protective measure against subsequent substance abuse and child

maltreatment. It also coincides with treatment admission data indicating that most persons enter treatment due to some type of mandate. In either case, it is clear that access to an early intervention such as CPS may be an effective deterrent to substance abuse, relapse, the need for additional treatment and most importantly, the prevention of child abuse.

Question 3: What do the associated factors reveal about the sample?

Most of the variation between the study group mothers and the comparison group mothers were in the associated factors that included childhood victimization, perpetrator, type of abuse, criminal justice history and domestic violence. For the exception of type of abuse, all the variables were strongly associated with CP status. Mothers with less involvement in the criminal justice system were more likely to have a CP status and mothers in abusive relationships that resulted in domestic violence were more likely to be involved with CPS. Kettinger, Nair & Schuler (2000) found that violence and incarceration were associated with parenting stress that often resulted in child abuse among mothers with substance abuse disorders. Though more CP status mothers reported domestic violence (52%) than Non-CP status mothers, (31%), the Non-CP status mothers were twice as likely to be involved in the criminal justice system than CP status mothers.

This finding established that legal entanglements are often ancillary to substance abuse. For reasons unknown, but speculated, less CP status women were mired in the criminal justice system. It may have been that this outcome was attributed to the extent of a woman's alcohol or drug usage, which in the sample, seemed to be less progressed among the study group women. Even though the analyses did not statistically examine

this relationship due to lack of reliable data, other indicators such as the SASSI results revealed that there was some substance dependence among the Non-CP status mothers, whereas all the CP status mothers were substance abusers.

While the number of mothers being entangled in the criminal justice system was notably lower for CP status mothers, 46% vs.85%, the likelihood of becoming involved with the legal system at some point is high for women with substance abuse disorders in general. This finding suggests that child welfare, treatment and other organizations involved in working with women with drug abusing or dependent women need to develop methods to methodically discern criminal justice system involvement. It is even more important to establish linkages with the legal or criminal justice system to ensure that a more effective and comprehensive process can be instituted to address the complex needs of CPS involved mothers with alcohol or drug abuse disorders that may be involved in the legal system.

In 1994, a statewide initiative in Texas resulted in the establishment of the Treatment Alternatives to Incarceration Program (TAIP) in several of the largest cities that included San Antonio, Texas. One of the major achievements of TAIP was that it merged the judiciary, the major criminal justice institutions (Probation and Parole), and the city's major substance abuse treatment organizations in a concerted effort that screened, assessed and referred non-violent substance abusing offenders to treatment in lieu of incarceration. By replicating intervention strategies such as collaboration or cross training that underscored this model program, a similar response could be initiated to

ensure that intricate issues such as criminal justice involvement and related problems faced by CP status women can be adequately addressed.

There was more childhood victimization reported by the CP status mothers in comparison to the Non-CP status mothers, 50% to 29% respectively. Marcenko & Spence (1995) found more psychological distress and childhood abuse histories among women with alcohol or drug abuse disorders involved with child welfare. Many studies have found an association between childhood victimization and substance abuse (Barth, 2001; Downs & Harrison, 1998; Dube et al., 2001; English & Marshall, 1999; Fieg, 1998; Kettinger, Nair & Schuler, 2000; McMahon & Luthar, 1998; Miller, Smyth & Mudar, 1999; Mullings, et al., 2004; Ravndal et al., 2001; Sawyer et al., 2002; Schuck & Widom, 2003; Sidebotham & Golding, 2001; Wilsnack et al., 1997; Young & Gardner, 2000). Childhood abuse has also been linked with child abuse (Chaffin, Kelleher & Hollenberg, 1996; English & Marshall, 1999; Miller, Smyth & Mudar 1999).

Research Question: Which of the covariates predict CP status?

A total of 18 predictor variables were initially identified in the literature as being associated with child abuse and neglect and with substance abuse among parents involved with child welfare. However, this study found that of the 18 variables, only 8 (education, employment, past treatment, prenatal substance abuse, childhood victimization, perpetrator, criminal justice history and domestic violence) had a statistically significant relationship with CP status. Furthermore, when these significant variables were placed in the logistic regression model only five variables predicted CP status: education, past treatment, prenatal substance abuse, perpetrator, and criminal justice history.

6.4 Implications

6.4.1 Implications for Social Work

Social work has a long history of developing and establishing methods to ameliorate conditions that adversely affect people, families, organizations, and the community at large. The profession depends on the method of social research to guide its practice through application of the scientific process and meaningful results that add or augment the knowledge base of social work. Through the use of social research methods this study sought to increase an understanding of the ecological factors and the role that these variables played in predicting CPS involvement among mothers with alcohol or drug abuse trajectories.

Understanding the extent to which drug abuse factors predicted child welfare involvement was crucial when considering that CP status in the study group sample implied child abuse or neglect. Granted that the study results could yield critical information that could establish more effective interventions with these mothers, improving the mothers' social functioning and other impaired areas, could in essence, improve the quality of life for their children and possibly decrease the likelihood of child abuse and/or neglect.

6.4.2 Implications for Practice

Although this was an exploratory study, its findings and the themes reflected in the literature on women who are substance abusers hold several implications for practice, research and social work education. Practice implications can be inferred for women as well as their children and families. For the women, their alcohol and drug abuse

trajectories suggest the need for substance abuse treatment that is tailored to meet the multifaceted and highly complex needs of women who are involved in multiple systems that include child welfare. Over half of CPS involved women (52%), reported being unemployed suggesting that if there is no other income source, unemployment could result in poverty conditions, a factor linked to child abuse and neglect. Thus, in formulating services specific for these women, job placement, job training or other income producing opportunities need to be initiated or tapped into from the local community resources.

The fact that most of the study women were minority and representative of child welfare involved women in general, calls for the integration of culturally specific interventions that can also maximize the cultural strengths of the women. Other psychosocial factors including a greater history of victimization among the CP status mothers indicate the need for specialized counseling and clinical interventions in order to resolve issues related to those negative experiences, reduce feelings of shame and guilt (Tracy, 1994) and enhance their overall functioning. Treatment and other intervention programs need to include staff training that addresses the uniqueness of women whose child abuse and neglect may be linked to their own childhood abuse.

Moreover, given that the overall sample represented women with children accentuates the need for a range of supportive services such as special developmental and educational needs of children, child care, prevention services targeted at children and services related to enhancing employment and educational status. Family history of substance abuse is a risk for substance abuse on the basis of genetic predisposition as

well as learned behaviors related to substance use and coping mechanisms. Prevention services for children with mothers who have issues with alcohol or drugs may help to break the generational cycle. Lastly, since most case study women were involved with males who were also users of alcohol and/or drugs, treatment services need to adopt a systems approach that defies the traditional models that focus exclusively on the individual.

6.4.3 Implications for Research

The findings strongly identify need for alternative and more empirically substantiated screening and assessment procedures as well as qualitative and quantitative research to better understand the needs, challenges and treatment experiences of women whose alcohol or drug abuse disorders contribute to child abuse and neglect. Currently, there is no specific research that has examined how the abuse of alcohol or drugs results in child abuse or neglect. There is only speculation. There is also a need for research that examines more critically prenatal substance abuse among CPS involved women, and prior treatment as these variables had a predictive substantiation in the analysis.

Also important are studies and future research that examines significant other use. In accordance with the study results, males with alcohol or drug abuse issues continue to play a pivotal role in the lives of women who abuse alcohol or drugs, however, these men tend to be widely neglected in the literature and research. According to Sosa, (personal communication, 2005), the San Antonio based CPS workers made a concerted effort to provide services to both parents where applicable. As a result, there were several cases

among the CPS referred clients where either parents (or stepparents) were involved in the treatment episode.

Several patterns were noted among the men that engaged in treatment alongside the CP status mothers. These patterns included: (1) CPS referred male clients were also substance abusers and more specifically, users of multiple drugs; (2) men were more likely to be married with the CP status mother; (3) the men had multiple children with the CP status mother; and (4) both parents had been together for several years. The latter seemed to promote a vested interest in sustaining the relationship.

6.4.4 Implications for Social Work Education

Implications for social work education include the need for specialized substance abuse course work or curriculum, particularly one that incorporates material on parents who are involved in various systems such as child welfare. A survey of NASW members found that most social workers encounter persons with substance abuse disorders in their practice, yet more than half of respondents indicated a need for more training in substance abuse (NASW, cited in Lundgren, et al., 2005). One study even suggested that social workers were more apt to overlook substance abuse, domestic violence and child abuse issues in their work with child welfare involved parents (English & Marshall, 1999). Social work functions including provision of information and referral, screening and assessment, and case management are likely to require knowledge of drug and alcohol treatment options. Thus, social workers need to be better informed and educated regarding the problems substance abusers face before, during, and after treatment.

Moreover, despite the predominance of abstinence models in the historical development and current structure of the substance abuse treatment system, social workers also need to be exposed to information that challenges the disease model (Burke & Clapp, 1997) and presents the benefits of harm reduction approaches such as Methadone Maintenance treatment (MMT). Even though none of the CP status women were dependent on opiates or in need of MMT, addiction to opiates, particularly heroin is a prevalent problem in San Antonio. In fact, the treatment program on which the data for this study is based has seen a steady growth of women entering its MMT due to opiate addiction. In addition, because heroin is generally used intravenously, MMT is a key protective factor in the increase of communicable diseases such as HIV or AIDS.

Still, the efforts of the program administrator to include MMT as a treatment option for CPS involved parents subsidized through the TDPRS grant was met with resistance despite that MMT is the most widely researched and effective form of treatment for opiate dependence. All things considered, social workers either preparing for, or already working in the child welfare system need training to increase their understanding of the multi-dimensional factors affecting substance abuse by women. Training is particularly important to help child welfare workers avoid blaming the victims and prevent perpetuation of stereotypes of female substance abusers.

6.4.5 Implications for Policy

Initially, the study results showed that maternal substance abuse is a critical factor in child welfare, and it is imperative that more unified and defined methods of assessment for substance abuse be established for parents or caregivers involved in child

welfare. Moreover such methods need to distinguish between substance abuse and substance dependence. Making this distinction is fundamental to the provision of appropriate treatment services. One recommendation is for the child welfare system to consider the adoption of the substance abuse and dependence criteria established through the DSM-IV. Although the study found various inconsistencies in the methods used for determining substance abuse among child welfare involved parents or caregivers (see Table 2) the DSM-IV was most widely used standard for establishing drug use in general. Adoption of the DSM-IV criteria could result in the accurate assessment of substance abuse or dependency and treatment appropriateness. This in turn, could yield better treatment outcomes.

Another recommendation with major implications for policy is the need for substance abuse treatment that specifically addresses the unique needs of mothers who come to the attention of child welfare. Though substance abuse treatment for women has often been the by product of treatment developed for men, gender specific treatment has been shown to result in higher recovery rates for women with alcohol or drug abuse disorders (Goldberg, 1995). At a time when the child welfare system is inundated with children due to maternal substance abuse it is a travesty that treatment for alcohol or drug use disorders is scarce due to funding constraints or the inability of child welfare workers to discern when substance abuse in general.

Furthermore, improved screening methods to assess the extent that significant other use is a factor in these women's lives should be a specific focus of assessment. It is even more important to develop programs that promote substance abuse treatment to the

parent, caregiver and the family as a whole. Though the provision of family treatment may be a costly venture at the outset, treating a family contending with substance abuse and related issues such as child maltreatment may prove to be less costly in the long run. Unless such comprehensive responses are implemented to address the effects of parental substance abuse, society may be doomed to continue a cycle of abused and neglected children who fall prey to the aftermath of parental addiction.

6.5 Conclusion

Given the relative neglect of mothers with substance abuse disorders, who are involved with CPS, this exploratory study makes a contribution in that describes a diverse sample of women with substance abuse disorders, who were involved with CPS and were not involved with CPS. Further, the study provided information on the issues that affect these mothers and attempts to explain some of the reasons for this growing phenomenon. The mothers in the study were found to experience multiple and complex issues that exacerbated their lives and their situations often resulting in substance abuse or child abuse and neglect.

Furthermore, all the sampled women in the case study data were mothers of children, lending support to the research that mothers with children are more likely to enter treatment than mothers not residing with their children (Amodeo et al., 2003). Most of the women had entered treatment through some type of sanction, however, the value of self determination fostered in the treatment program was still the decisive factor in whether a woman chose to become engaged in the treatment episode, complete

treatment or drop out. Unfortunately, one of the unanticipated findings in conducting this research was a low rate of retention in treatment among mothers involved in CPS.

The mothers in the comparison group did far better at remaining in treatment. These mothers were in treatment due to sanctions imposed through the local corrections and supervision office (probation). According to the study site staff, fewer of the CP status mothers actually completed the 4-6 months treatment program in comparison to Non-CP status mothers and most of the Non-CP status mothers were in treatment due to probation sanctions. Failure to complete the treatment program could result in incarceration of these mothers for violation of the conditions of their probation.

Nonetheless, it is important to recognize that for the CP status mothers, treatment non-compliance could result in the loss of their children. From this perspective it would seem appropriate to conclude that the compromising of their custodial rights to their children, could signify that CPS involved mothers are marred in situations that are so intense, and complicated to unravel without the appropriate resources and support

Although the study included a small sample size, it is important to note that the study focused on a subgroup of women that for the most part, have only recently been the object of interest and research. Even though all the study mothers were actively involved with CPS, fewer than half of the comparison group mothers had previous contact with CPS. However, all the mothers reported a number of risk factors for individual and family functioning. Findings were consistent with research suggesting that substance-abusing women more likely to be depressed, come from families of substance abuse and

family dysfunction (Finnegan & McNally, 1997; Pape, 1993), and be victims of sexual abuse including incest (Boyd et al., 1997; Hutchins, 1997).

The high rates of childhood victimization, family history of substance abuse/dependence and significant other use reported by the study sample present an ongoing risk not only for women's continued vulnerability to substance abuse and addiction but for their parenting behaviors as well. This research embraced the ecological model in the examination of the complex risk factors facing mothers whose alcohol and drug abuse disorders have resulted in child abuse and neglect. The results shed light to the influence and predictive ability of these factors in hope that these findings are considered in future interventions with mothers at risk for a range of negative outcomes that include continued alcohol or drug use, involvement with criminal justice and child maltreatment.

APPENDIX A
PREDICTOR VARIABLES

Predictor Variables

Variables	Measures	Operationalization
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I. Parental Features

<p>(1) <i>Ethnicity</i></p>	<p>Psychosocial Assessment Assessment Results Report Case File Notes TDPRS Referral Form for Contracted Services</p>	<p>Subjective*/Objective **Documentation Person's Ethnic Background 1=White 2=Black 3=Hispanic 4=Native American 5=Asian 6=Other</p>
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Note: 4-6 on *Ethnicity* were collapsed into *other* category in the final statistical analyses due to low frequency.

<p>(2) <i>Age</i></p>	<p>Psychosocial Assessment Assessment Results Report Case File Notes TDPRS Referral Form for Contracted Services Copy of Texas Driver's License or other state issued license</p>	<p>Subjective*/Objective **Documentation Age at admission Date of Birth</p>
<p>(3) <i>Marital Status</i></p>	<p>Psychosocial Assessment Instrument Assessment Results Report Case File Notes</p>	<p>Subjective/Objective Documentation Reported marital status of subject 1=Single 2=Married 3=Divorced 4=Separated 5=Living with someone 6=Widowed</p>

Note: Various categories were collapsed in the variable *marital status* due to a low frequency count. Item 5 (living with someone) was collapsed into 1 (Married); Item 6 (Widowed) was collapsed into 1 (Single).

<p>(4) <i>Family Size</i></p>	<p>Psychosocial Assessment Assessment Results Report Case File Notes TDPRS Referral Form for Contracted Services</p>	<p>Subjective/Objective Documentation Reported number of children under 16 years categorized as: 1=one child 2=two children 3=three children 4=four or more children</p>
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<p>(5) <i>Education</i></p>	<p>Psychosocial Assessment Assessment Results Report</p>	<p>Subjective/Objective Documentation Level of Education recorded as:</p>
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Case File Notes

- 1= Less than high school
- 2=Some high school
- 3=GED
- 4=High School Graduate
- 5=Some college
- 6=Associate Degree
- 7=Bachelors Degree
- 8=Masters Degree or higher

Note: Due to low frequency counts on various categories, the variable, *education* was dummy coded as 1=High School; 0=No High School for the final analyses.

(6) *Means of Support*

Psychosocial Assessment
Assessment Results Report
Case File Notes

- Subjective/Objective Documentation
Financial means recorded as:
- 1=Own Income
 - 2=Significant Other's Income
 - 3=Parent's Income/Support
 - 4=Temporary Assistance to Needy Families (TANF)
 - 5.=Child Support
 - 6=Security Income
 - 7=Unemployment Benefits
 - 8=Illegal Means of Support (Prostitution, Gambling, Drug Dealing/Sales, etc.)
 - 9=Boyfriend's Income/Support
 - 10=Other Relative's Support

Note: Various categories were collapsed from the variable *means of support* in the final analyses due to low frequency counts. The category 9 (boyfriend's income) was collapsed into 2 (significant other); 5-10 were changed to *other* category.

(7) *Employment*

Psychosocial Assessment
Assessment Results Report
Case File Notes

- Subjective/Objective Documentation
Type of Employment categorized as
- 0=Unemployed
 - 1=Employed full-time
 - 2=Employed part-time
 - 3=Temporary employment
 - 4=Self-employed
 - 5=Student, not employed
 - 6=Student, employed part-time
 - 7=Housewife not employed
 - 8=Retired
 - 9=Disabled
 - 10=Other

Note: The variable, *employment* dummy coded into 1=Employed; 0=Not Employed for the final statistical analyses as some categories had <5 counts and in some cases, the categories were not mutually exclusive or mutually exhaustive.

II. Substance Abuse Factors

(8) *Poly substance abuse*

Psychosocial Assessment Instrument
Assessment Results Report
TDPRS Referral Form for Contracted Services
Case File Notes

- Subjective/Objective Documentation
To determine if subject has abused multiple drugs at the same time
- 0=No Poly drug use
 - 1=Poly drug use

(9) *Predisposition*

Psychosocial Assessment
Assessment Results Report
Case File Notes

- Subjective/Objective Documentation
To determine family history of substance abuse or not – (paternal or maternal drug use)
- 0=No Family history of substance

		abuse 1=Family history of substance abuse
<i>(10) Family User</i>	Psychosocial Assessment Instrument Assessment Result Reports Case File Notes	Subjective/Objective Documentation To identify the drug user(s) in the the subject's family of origin 0=No family user 1=Father 2=Mother 3=Both Parents 4=Brother(s) 5=Sister(s) 6=Stepparent(s) 7=Use by multiple family members
<i>(11) Significant Other Drug Use</i>	Psychosocial Assessment Instrument Assessment Results Report TDPRS Referral Form for Contracted Services Case File Notes	Subjective/Objective Documentation To determine the presence or absence of significant other substance abuse including alcohol and illicit drugs 0=No Significant other substance abuse 1=Significant other substance abuse
<i>(12) Previous Treatment</i>	Psychosocial Assessment Assessment Results Report TDPRS Referral Form for Contracted Services Case File Notes	Subjective/Objective Documentation To determine if subject has had prior treatment for substance abuse 0=No Prior treatment 1=Prior Treatment
<i>(13) Prenatal Substance Abuse</i>	Psychosocial Assessment Assessment Results Report TDPRS Referral Form for Contracted Services Case File Notes	Subjective/Objective Documentation To determine if the respondent had abused any type of alcohol or drugs when pregnant 0=No Prenatal Substance Abuse 1=Prenatal Substance Abuse
III. Associated Factors		
<i>(14) Childhood Victimization</i>	Psychosocial Assessment Instrument Assessment Results Report Case File Notes TDPRS Referral Form for Contracted Services Other CPS reports Probation Summary	Subjective/Objective Documentation To determine if there is history childhood victimization (CV) 0=No CV 1=CV
<i>(15) Type of Abuse</i>	Psychosocial Assessment Instrument Assessment Results Report	Subjective/Objective Documentation To identify the type of CV experienced 0=No abuse 1=Physical abuse 2=Emotional Abuse/Neglect 3=Sexual 4=Combined forms of abuse
<i>(16) Criminal Justice History</i>	Psychosocial Assessment Instrument Assessment Results Report Case File Notes TDPRS Referral Form for Contracted Services	Subjective/Objective Documentation To determine if the respondent had previous criminal justice involvement as measured by: a previous arrest(s), having done jail or prison time, and/or current or past probation or parole status. 0=Criminal Justice History 1=No Criminal Justice History

(17) Domestic Violence

Psychosocial Assessment Instrument
Assessment Result Report
Case File Notes
TDPRS Referral Form for Contracted Services

Subjective/Objective Documentation
Data on whether the respondent had experienced any form of domestic violence (DV) involving a spouse or significant other
0 = No Domestic Violence History
1= Domestic Violence History

***Subjective Documentation** refers to information that has been directly obtained or ascertained by the subject (i.e., self reported information). Information is generated through the use of various instruments (see measures) In some cases these have been corroborated by other documents such as CPS reports (see Objective Documentation)

****Objective Documentation** refers to pertinent information on a specific variable that has been generated by another person other than the client. Generally, information is obtained by the counselor, the CPS case manager or other source (probation officer, therapist, etc.) through interaction or interviews with clients. All information is documented or maintained in the case files that are maintained at the study site. In some cases, client information is provided through narrative compilations (i.e., CPS Family Assessment Report), or through the program's clinical staff interaction or dialogue with CPS case managers.

APPENDIX B
CRITERION VARIABLE

Criterion Variable

Variables	Measures	Operationalization
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CPS Status
(Child Maltreatment)*

TDPRS Referral Form
Psychosocial Assessment

CP Status refers to Child Protective Services
Involved due to CAN
0=Non-CP Status
1=CP Status

*Since all the CP Status cases, were referred to the treatment program for child abuse and/or neglect, these cases refer to those involving child maltreatment.

APPENDIX C
CASE ABSTRACTION FORM

ECOLOGICAL CORRELATES OF CP STATUS MOTHERS

Study Data
Case Abstraction Form

Data Collector _____ **Date:** ____/____/____

Case Number: **Admission Date** **Year**

Zip code: **Date of Birth**

PARENTAL CHARACTERISTICS

(1) Ethnicity

1. White 2. Black 3. Hispanic 4. Native American 5. Asian 6. Other

(2) Age

(3) Marital Status

1=single	2=married	3=divorced	4=separated
5=living w/someone	6=widowed	7=other	8=unknown

(4) Family Size

1=one child	2=two children	3=three children	4=four or more children
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(5) Education

0=less than High School	1=some High School	2=High School graduate	3=GED
4=some college	5=Associate Degree	6=Bachelors Degree	7=Masters Degree or higher

(6) Means of Support

0=No Income	1=Own Income	2=Spouse's Income	3=Parent's Income
4=TANF	5=Child Support	6=Social Security or SSI	7=Unemployment Benefits
8=Illegal Means	9=Boyfriend's Income		

(7) Employment

0=Unemployed	1=Employed full-time	2=Employed part-time	3=Temporary Employment
4=Self Employed	5=Student, not employed	6=Student, employed part-time	7=Housewife, not employed
8=Retired	9=Disabled	10=Other	

Substance Abuse Factors

(8) Poly Substance Abuse

0=no poly substance abuse	1=poly substance abuse
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(9) Predisposition

0=no family history of substance abuse	1=family history of substance abuse
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(10) Family User

0=No family user	1=Father	2=Mother	3=Both parent(s)
4=Brother(s)	5=Sister(s)	6=Stepparent(s)	7=Use by various family members

(11) Significant Other Alcohol and/or Drug Use

0=no alcohol and/or drug use by significant other	1=use of alcohol and/or drugs by significant other
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(12) Past Treatment for Alcohol or Drug Abuse (AODA)

0=no previous AODA treatment	1=previous AODA treatment
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(13) Prenatal Substance Abuse

0=no prenatal substance abuse	1=prenatal substance abuse
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Incidental Factors

(14) Childhood Victimization (CV) History

0=no CV History	1=CV History
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(15) Type of Abuse

0=no history of abuse	1=Physical Abuse	2=Emotional Abuse
3=Sexual Abuse	4=Neglect	5=Combined forms of abuse

(16) Perpetrator

0=no perpetrator	1=Father	2=Mother	3=Both Parents
4=Stepparent(s)	5=Other Relative(s)	6=Non-relative(s)	8=Multiple abusers or perpetrators

(17) Criminal Justice History

0=no CV History	1=CV History
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(18) Domestic Violence (DV) History

0=no DV History	1=DV History
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Discharge Type

1=completed treatment successfully	2=did not complete treatment successfully	3=unknown
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Discharge Date

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BIOGRAPHICAL INFORMATION

Mary Jo Alvarez-Rodriguez was born in San Antonio, Texas and is one of fourteen children born to Valentin and Simona Alvarez. She is married to Paul Rodriguez and has two children: Jaclyn Anne and Aimee Cathleen Rodriguez. She began her career in the profession in social work immediately after earning a Bachelors and Masters in 1983 and 1984, respectively, from Our Lady of the Lake University in San Antonio, Texas. Mary Jo did most of her post masters work in the field of chemical dependency, having developed a number of programs for individuals or groups with alcohol or drug abuse disorders in San Antonio, Texas. In 1996, Ms. Rodriguez and two other colleagues established the Texas Recovery and Counseling Services, Inc., a chemical dependency treatment program in San Antonio, Texas where she continues to practice and assist with training, grant and program development. In addition to her practice, Ms. Rodriguez has been teaching and coordinating the Social Work Field Program at St. Edward's University in Austin, Texas since 1994. Her research interests are in studying the needs and issues of individuals with alcohol and/or drug disorders, offenders, women and Hispanics. Having completed her doctoral education, it is her hope to contribute to the notable gap of research with Hispanic populations, particularly women.