Int J Ment Health Addict. Author manuscript; available in PMC 2014 June 25.

Published in final edited form as:
Int J Ment Health Addict. 2010 April 01; 8(2): 320–335. doi:10.1007/s11469-009-9255-8.

Treatment Issues for Aboriginal Mothers with Substance Use Problems and Their Children

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Abstract

In many cultures, approximately one third of people with drug dependence are women of child-bearing age. Substance use among pregnant and parenting women is a major public health concern. Aboriginal people have some of the highest rates of substance abuse in Canada, increasing concern for detrimental health impacts, including those for women and their children. For many women, substance abuse offers a means of coping with trauma, such as childhood abuse, partner violence, and, for Aboriginal women, the intergenerational effects of colonization. In this paper, we review treatment issues for Aboriginal mothers with substance use problems and their children. We discuss gender-specific issues in substance abuse, the need for women-specific treatment, the impact of substance abuse on children and parenting, the additional risks for Aboriginal women and children, and the need for integrated programs (those that integrate pregnancy-, parenting-, and child-related services with women-specific addiction treatment). We describe New Choices as an example of an integrated program, review research on existing treatment for Aboriginal mothers with substance use issues, and describe Sheway as a promising integrated program for Aboriginal women with substance abuse issues and their young children. There are few treatment programs specifically for Aboriginal mothers with substance use issues and their children and very little research on their effectiveness. Based on our review of existing evidence, we offer recommendations for future research and practice.

Introduction

Women use substances at lower rates than men, but the physical and mental health impacts of women's use are substantial and, in some cases, greater than those for men (Statistics Canada, 2002). According to the 2000–2001 Canadian Community Health Survey, twice as many Aboriginal than non-Aboriginal women reported heavy drinking in the past year. However, there is also a higher rate of abstinence from substances among Aboriginal peoples in comparison to the general population (Dell & Lyons, 2007) and therefore considerable strength and resiliency to draw upon in addressing problematic substance use issues. For many women, substance abuse offers a means of coping with trauma, such as childhood abuse, partner violence, and, for Aboriginal women, the intergenerational effects

of colonization. Although Aboriginal mothers and their children are at high risk for poor outcomes, they remain understudied in addiction treatment research.

The purpose of this paper is to review existing research on treatment issues for Aboriginal mothers with substance use problems and their children. To provide important background and context, we first review research on substance abuse issues for women, the need for women-specific treatment, the impact of substance abuse on children and parenting, the additional risks for Aboriginal women and children, and the need for integrated programs (those that integrate pregnancy-, parenting-, and child-related services with women-specific addiction treatment). We describe an example of an integrated program called New Choices to illustrate this type of program. We then review existing research on treatment for Aboriginal mothers with substance abuse issues and their children, including Sheway, a promising Aboriginal integrated program, and treatment evaluation, with recommendations for future research. We refer to Aboriginal peoples in Canada generically in this paper, but recognize that the differences between the histories, cultures, and present day circumstances of First Nations, Inuit, and Métis must be accounted for in any holistic response to women's problematic use of substances during their child-bearing years.

Background

Substance Abuse Issues for Women

Research has shown that women and men differ in several substance abuse issues (Ashley, Marsden, & Brady, 2003). In Canada, women have lower rates of alcohol and other drug use generally and problematic use specifically (Amhad, Poole, & Dell, 2007), however, in the past 15 years, there has been an increase in women's use of substances (Ahmad et al., 2007). In comparison to male physiology, the female body is vulnerable to different and greater harms from substance abuse. For example, with exposure to lesser amounts of alcohol over a shorter period of time, women are susceptible to conditions such as osteoporosis, brain impairment, gastric ulcers, and breast cancer (National Institute on Alcohol Abuse and Alcoholism, 2002). In comparison to men, women typically report more complex precursors to substance abuse, more negative consequences, and more difficulties accessing treatment (Dell & Roberts, 2005). In a 2004 United Nations report, women who abused substances were described, in comparison to men, as having fewer resources, being more likely to be living with a partner with a substance use problem, experiencing more severe substance problems at the beginning of treatment, and having higher rates of trauma (United Nations Office on Drugs and Crime, 2004).

Gender and social issues—Gender can influence reasons for using (e.g., social pressures), pathways to problematic use (e.g., victimization), and the consequences of use (e.g., absence of social supports available to women). In gender-sensitive theoretical models, substance abuse is viewed in the context of women's relationships, including broader relational and multigenerational systems. Women's substance use issues have been described as more "socially embedded" than men's (Saunders, Baily, Phillips, & Allsop, 1993). Women entering treatment are more likely than their male counterparts to report relationship problems, social isolation, fewer friends, and having partners who are involved in drugs or

alcohol (Comfort & Kaltenbach, 2000; Finkelstein, 1994; McComish et al., 2003). In qualitative studies of females in recovery, women report the importance of repairing relationships with family members and developing social support systems to prevent relapse (Kearney, 1998; Lewis, 2004). In a recent qualitative study of First Nations women in treatment for drug abuse in Canada, social stigma was reported as a significant influence on women's self-identity and on their recovery (Acoose & Dell, 2009).

Trauma and mental health—Substance abuse has been identified as a means for women to cope with distressing situations in their lives, including emotional pain, distress, violence, and trauma (Fillmore & Dell, 2001; Finkelstein et al., 2004). Many women with substance use issues report traumatic histories of physical or sexual abuse and intimate partner violence (Orwin, Maranda, & Brady, 2001; Poole & Greaves, 2007). For example, women accessing treatment services are more likely to report childhood sexual abuse than men (National Centre on Addiction and Substance Use at Columbia University, 2006). Client intake data on 209 women in residential treatment and 39 women in day treatment at the Aurora Centre for addictions treatment in British Columbia in 2005 indicated that 63% had experienced violence as an adult and 41% as a child (half of which was physical abuse and half sexual abuse) (Poole, 2007). In an American study, over 50% of women with mental health disorders had a co-occurring substance use problem, and nearly all were rooted in histories of trauma (Fallot & Harris, 2004). Alcohol abuse can be up to 15 times higher for women who are victims of partner violence than women who are not victims (Logan, Walker, Cole, & Leukefeld, 2003).

Women with substance use issues often have high levels of comorbid psychopathology, especially post-traumatic stress, depression, and anxiety (Luthar, Cushing, Merikangas, & Rounsaville, 1998; Najavits, Weiss, & Shaw, 1997; Singer et al., 1997). Although substance use frequently coexists with trauma and mental health problems, the link with substance abuse for women remains under-acknowledged in addictions research and practice (Orwin et al., 2001; Poole & Greaves, 2007).

Disproportional rates of family violence, sexual harassment, discrimination, low health status, and poverty are experienced by Aboriginal women (Dell & Lyons, 2007), including a greater number and more severe experiences of racialized and sexualized violence than other women in Canada (Brownridge, 2003; Statistics Canada, 2007). Aboriginal women report having been impacted by the historical and inter-generational effects of colonization (i.e., complex multiple losses including loss of traditional lands and culture, forced removal from families, and residential schooling) and there is a link between these types of traumatic experiences and using substances as a means to cope (Chaussaneuve, 2007; Shannon, Spittal, & Thomas, 2007). In an ongoing prospective cohort study (The Cedar Project) of Aboriginal women (age 14–30) with substance use issues ($N = 262$) in British Columbia, many (58–78%) reported early drug use (mean age 16 years), childhood sexual abuse (mean age 7 years), foster care (mean age 5 years at entry), prison (mean age 17 years at entry), and involvement in the sex trade (mean age 17 years at start) (Shannon et al., 2007).

Access to care—Women with substance use issues report difficulties using conventional systems of care. Services are not accessed for a number of reasons: fear of forced treatment

or criminal prosecution, fear of losing custody of children, lack of treatment readiness, coexisting mental illness, guilt, denial or embarrassment regarding their substance use, stigma, and lack of transportation (Curet & His, 2002; Howell & Chasnoff, 1999). System-related issues also present barriers to care. Negative attitudes of health care providers and responses that stigmatize women can deter them from accessing care (Carter, 2002). This includes co-ed treatment programs where women who have experienced partner violence often do not feel safe.

Aboriginal women report that access to adequate health care and preventative services is problematic (Benoit, Carroll, & Chaudhry, 2003; Boyer, 2006; Harding, 2005; Ritson, 1999). For example, in an in-depth qualitative study of ten rural First Nations women's experiences of accessing health care, Browne (2000) found that women identified numerous invalidating encounters, including being outright dismissed, having to "look white" (e.g., in dress and appearance), and encountering negative stereotypes about Aboriginal women and, in particular, Aboriginal women with substance abuse problems.

Gender-specific Substance Abuse Treatment for Women

In addition to the challenges that women face with accessing conventional supports, services, and systems of care for their problematic substance use, some traditional addiction program models involve a confrontational style that does not work with most women (Kauffman, Dore, & Nelson-Zlupko, 1995). Women may benefit from a style of treatment that is less structured and less rigid (Hodgins, el-Guebaly, & Addington, 1997). Historically, treatment programs have been designed for men, therefore male cultural norms have dominated treatment programs, including norms for group discussion (Hodgins et al., 1997; Saunders et al., 1993). In mixed gender groups, women tend to be less verbally expressive and more likely to yield to interruptions than when in same-sex groups (Hodgins et al., 1997), which can result in adverse effects, including dropout (Copeland & Hall, 1992). Women report that a treatment environment in which they feel safe promotes therapeutic effects (Lewis, 2004). A safe and welcoming environment has been deemed essential to the process of change for substance-using women (Curet & His, 2002). Other recommendations include a continuum of coordinated services guided by female-specific substance abuse models that include attention to relationships, trauma, and mental health (McKay, Gutman, McLellan, Lynch, & Ketterlinus, 2003).

Studies show that, compared to traditional mixed-gender programs, women in women-only substance abuse programs have better retention (Anglin, Hser, & Grella, 1997) and better treatment outcomes (Comfort & Kaltenbach, 2000; Finkelstein, 1994; Hodgson & John, 2004; Orwin, Francisco, & Bernichon, 2001). In a systematic review of literature on substance abuse treatment for women, Ashley et al. (2003) reviewed 38 studies and examined six specific components of treatment programs. Treatment components associated with positive outcomes included women-only programs, supplemental services, and workshops that address women-focused topics and mental health.

Parenting in the Context of Substance Abuse

Maternal use of alcohol and other drugs can have profound effects on pregnancy outcomes as well as on childhood health and development. Use of alcohol during pregnancy can cause developmental disabilities and birth defects in the fetus, including Fetal Alcohol Spectrum Disorder (FASD), which is estimated as occurring in every one to two per 1,000 live births in Canada (Public Health Agency of Canada, 2003). Higher rates of FASD have been found among Aboriginal women in Canadian studies, but there is limited data on which to make solid conclusions (Tait, 2004). Use of drugs during pregnancy has been found to be associated with low birth weight and premature delivery, neonatal withdrawal, respiratory distress, infection, physical deformities, and compromised neurobehavioral progress after birth (Curet & His, 2002). Children born to women who used drugs during pregnancy are at greater risk for impaired physical growth and development, behavioural problems, and learning disabilities (e.g., Covington, Nordstrom-Klee, Ager, Sokol, & Delaney-Black, 2002). In a study of preschool-aged children of mothers in addiction treatment who completed on-site child development evaluations, cognitive limitations were diagnosed in 69%, speech/language impairments in 68%, emotional or behavioural problems in 16%, and medical problems in 83% (Shulman, Shapira, & Hirshfield, 2000). In a study of 78 adolescent offspring of substance-abusing mothers, Luthar et al. (1998) found that 65% had a psychiatric disorder.

In reviewing research on parenting of mothers with substance abuse issues, it is important to consider as a framework the holistic context of determinants of health (e.g., income and social status, employment, education, social environments, physical environments) (Public Health Agency of Canada, 2007; World Health Organization, 2007). Research has shown that women who abuse substances may have challenging life circumstances, including severe economic and social problems such as lack of affordable housing and homelessness, and may have difficulties providing stable, nurturing environments for their children (Kelley, 1998). There are additional risks for Aboriginal women and children, including disproportional rates of family violence, low health status, and poverty (Brownridge, 2003; Dell & Lyons, 2007; Statistics Canada, 2007). In Canada, Aboriginal women are twice as likely as non-Aboriginal women to be single parents (19% vs. 8%) and have high birth rates (2.6 children over their lifetime versus 1.5 among non-Aboriginal women) (Brownridge, 2003; Dell & Lyons, 2007; Statistics Canada, 2007).

While women with substance abuse issues do not necessarily parent poorly, they are at risk for some parenting problems (for a review, see Mayes & Truman, 2002). For example, maternal-infant interaction and attachment are areas of concern. Observational studies have shown that, in interaction with their infants, women with substance abuse issues show a lack of sensitivity and responsiveness to emotional cues and heightened physical activity, provocation, and intrusiveness (Hans, Bernstein, & Henson, 1999; Rodning, Beckwith, & Howard, 1991). Research on infants of methodone-using mothers has shown that they demonstrate higher levels of disorganized attachment than infants of nondrug-using mothers (Goodman, Hans, & Cox, 1999; Rodning et al., 1991). Also, mothers with substance use issues report a lack of understanding of child development, ambivalent feelings about their children, and lower capacity to reflect upon their children’s experience (Mayes & Truman,

2002). On self reports, they endorse harsh, authoritarian parenting styles, as well as permissive, neglectful under-involvement, and parent-child role reversal (Mayes & Truman, 2002; Suchman & Luthar, 2000).

Maternal substance abuse has been associated with child neglect and abuse (Dunn et al., 2002), and substance-abusing women are more likely to be involved with the court system and child protection services (Howell & Chasnoff, 1999), factors associated with a host of negative developmental sequalae for children. Compared to other mothers, mothers with substance use issues more frequently lose custody of their children (Chaffin, Kelleher, & Hollenberg, 1996; Mayes & Bornstein, 1996). Aboriginal children are overrepresented in the child welfare system. For example, one out of every 10 First Nations children is placed in care in Canada, compared to one out of every 200 non-First Nations children. The main reason has been cited as neglect, which is a direct consequence of “abject degrees of poverty, poor housing conditions, and high instances of alcohol and substance abuse” (Assembly of First Nations, 2007).

Integrated Programs that Include Children

Considering the research reviewed above, it is fair to conclude that women with substance use issues who are pregnant or parenting have additional needs (e.g., prenatal, parenting, childcare needs) that may not be met in traditional addiction services or even in women-specific treatment programs (Howell & Chasnoff, 1999; National Treatment Strategy Working Group, 2008; Women’s Service Strategy Work Group, 2005). A 2004 United Nations report concluded that “[e]ngaging and retaining pregnant and parenting women in treatment requires collaboration between the substance abuse treatment sectors, prenatal care, and child welfare…Ideally, services should be accessed through a single site” (United Nations Office on Drugs and Crime, 2004, p. 3). Integrated treatment programs differ from women-specific programs in that they include pregnancy-, parenting-, and child-related services in addition to women-specific treatment.

In a Canadian national survey of addiction agencies serving women, program managers indicated that only approximately half of their agencies provided some type of pregnancy-, parenting-, or child-related services and the majority of these services were referrals to other agencies (Niccols et al., 2008). Although this strategy may seem appropriate, the likelihood of women with substance abuse issues following up on these referrals is very low. Shulman et al. (2000) found that, while only 10% of mothers in treatment for substance abuse followed up with referrals for child development evaluations off site, 85% completed child development evaluations when they were offered on-site at the addiction agency.

Specialized services for women with substance use issues who are pregnant or parenting vary along a continuum from fully integrated (i.e., including on-site child development and parenting services with women-specific addiction services) to non-integrated (available, but separate, services) to limited (some services exist, but not others) to nonexistent (no services available). Some comprehensive integrated treatment programs have been described in the literature (Coletti et al., 1995; Graham, Graham, Sowell, & Zigler, 1997), and positive results from their evaluations have led researchers, clinicians, and policy makers to

recommend that treatment programs address women's physical, social, spiritual, and mental health needs, as well as children's needs through parenting programs, child care, and other child-centred services (Howell & Chasnoff, 1999; Women's Service Strategy Work Group, 2005). Having onsite childcare is considered "crucial for keeping mothers engaged long enough to make substantial positive change" (Clarke, 2001, p. 194). However, there are few integrated programs for pregnant or parenting women with substance use issues and their children in Canada.

New Choices

The New Choices program is an example of a comprehensive outpatient integrated program in a large urban centre in Canada that offers a "one-stop shop" for women with substance use issues who are pregnant or parenting young children (Niccols & Sword, 2005; Sword, Niccols, & Fan, 2004). New Choices was launched in 1998 by staff from several agencies in Hamilton (i.e., a hospital-based women's detoxification center, a community-based addiction service, an infant development program, a children's mental health agency, a home for adolescent mothers, a family resource center, a child care center, the public health department, and child protection services) with donations of services-in-kind and some government funding. The managing agency is the Salvation Army, a charitable, non-government organization. New Choices staff members are from partner agencies, are college-educated, and have several years experience in early child development, parenting, addiction, home management, life skills, and women's health. Staff members receive clinical supervision, monthly and as needed, by their home agency and in weekly team meetings. Women with substance use issues may self refer at any point during pregnancy or if they have children under 6 years old. Referrals also come from partner and other agencies, including primary health care, midwives, and hospital maternity wards.

Staff at New Choices provide a range of services and supports designed to help women reduce the harmful effects of substance use on themselves and their children. Services for women include addiction assessment, addiction treatment, prenatal education, nutrition counselling and skill development, women's health education, parenting education and counselling, peer support, life skills, home management, recreational programming, instrumental assistance (emergency food, clothing, toys and equipment, bus tickets, food vouchers, and a nutritious hot lunch), and aftercare. For children, services include on-site early child development screening and assessment, speech/language services, and an enriched children's program (including early literacy and numeracy activities and individualized programming). In addition, staff provide linkages with family physician services, nurse home visiting, developmental services, and other services as appropriate. Programming is offered four days per week. Both individual and group approaches are used to meet the program objectives. There is no manual but a daily schedule of group activities, mother-child interaction time, and time for individual counselling. The team provide in-the-moment education and modelling for the women regarding child development and parenting. The program shares a community location with a women's addiction service including a children's playroom and adjoining green space, and programming also is offered through outreach home visiting.

The program is individualized in that women are assisted in defining their needs and goals in relation to substance use, parenting, and other concerns (e.g., housing, budgeting, mental health, relationships, etc.) as well as in designing their own program for change. Therefore, length of treatment is not set. Clients typically are involved for an average of approximately 4 months (range 1 to 12 months), and some leave the program for a while and return. The long-term objective of New Choices is to improve the health and well-being of women and their children by providing a flexible program that offers information, support, treatment, and advocacy services in a safe, welcoming environment. Future directions include offering the evidence-based therapy for trauma/post-traumatic stress disorder and substance abuse called Seeking Safety (Najavits, 2007). Program funding challenges are ongoing, as most funding for New Choices is not permanent.

Aboriginal Programs

There is very little research on treatment for Aboriginal women with substance abuse issues but, in policy documents and reports on qualitative studies, an Aboriginal worldview approach to integrated treatment is recommended (Dell & Acoose, 2008, Poole, 2000; Shannon et al., 2007; Vinding, 1998; Wilson, 2004). Within an Aboriginal worldview, substance abuse is understood within a framework of mental health, more commonly expressed as mental wellness. Mental wellness is conceptualized as the well-being of individuals *and* their communities, in which understanding an individual apart from her community is not possible (Manson, 2000; Musell, 2006). An individual's well-being is understood to be inter-reliant with the well-being of the collective (children, family, community, land) and its relation to self identity (Dell, Hopkins, & Dell, 2005; Wilson, 2004). Aboriginal healing traditions assume an individual is a relational, interdependent entity (Manson, 2000). Therefore, traditional Aboriginal understandings and approaches to addressing problematic substance use and mental health issues historically have been at odds with conventional Western approaches that tend to silo services and characterize people as unique, separate, and autonomous (Beiser, 2003; Marbella, Harris, Diehr, Ignace, & Ignace, 1998).

Traditional healing practices include nativistic movements (which include revitalizing traditional principles, laws, values, and practices), sacred dances, sweat lodges (including ceremonial prayers), talking circle (a form of group therapy), four circles (an intervention with the goal of achieving balance and harmony in the four levels of life, in order: the Creator, spouse, immediate family, and extended family and community), and cultural enhancement programs (Abbott, 1998). Western treatment approaches have been applied in the treatment of substance abuse problems, such as detoxification, pharmacotherapy, Alcoholics Anonymous, and behavioral interventions. Some Aboriginal communities have adapted and integrated both traditional and Western approaches (Abbott, 1998).

The availability of culturally-appropriate services is a major concern for Aboriginal women accessing treatment in Canada (Benoit et al., 2003; Harding, 2005; Shannon et al., 2007). There are 58 federally-funded, mainly outpatient National Native Alcohol and Drug Abuse Program (NNADAP) centres, which is scant considering the geographic size of Canada and the populace and spread of Aboriginal peoples across the country. In particular, there is an

absence of treatment services in northern Canada and the territories. The majority of the NNADAP centres have been developed based on Aboriginal understandings of healing in conjunction with conventional approaches to treatment, but are limited in specific attention to women's and children's issues.

A recent, national qualitative study of a sample of six of the NNADAP centres examined important skills and characteristics of clinicians who provide residential services to First Nations women with substance abuse issues (CIHR Research Project Team, 2009). Findings from interviews of women clients and staff were similar. Skills and attitudes identified as helpful were: (1) recognizing of the impact of trauma, including the intergenerational effects of colonialism and inter-personal violence, (2) demonstrating care and empathy for the women, especially regarding loss of custody of their children, (3) open communication, (4) supporting the link to Aboriginal spirituality, culture, healing traditions, and teachings, (5) being accepting and non-judgemental, especially regarding prostitution and mothering practices, (6) providing inspiration by acting as a role model, and (7) acknowledging the past and assisting women in moving toward the future by developing healthier relationships and parenting skills, and fostering the women's ties to their communities to help break generational cycles.

A key finding of this study and other similar studies is that treatment programs need to focus on assisting women in re-claiming their identity as Aboriginal women by including culturally important healing experiences such as the medicine wheel approach (which aims to restore balance in women's lives by understanding that a woman's health and well-being is cyclical and in relation to other people and living things), sweat lodge and other ceremonies, as well as Aboriginal food, arts, teachings, and crafts (Dell & Acoose, 2008, Poole, 2000; Shannon et al., 2007; Vinding, 1998; Wilson, 2004). This approach includes attention to expectations of their roles as mothers, guilt resulting from past behaviour, and mothering skills. Traditionally, Aboriginal women have been honoured as the teachers, observers, life-givers, and caregivers for their children, families, and elders in Aboriginal communities (Walters & Simoni 2002). Within treatment, attention needs to be placed on these roles and their applicability to women's present-day lives (Dell & Acoose, 2008).

Sheway

An example of a comprehensive, integrated, Aboriginal program is the Sheway Project (Benoit et al., 2003; Marshall, Charles, Hare, & Ponzetti, 2003; Poole, 2000). Started in 1993, Sheway (named after an Aboriginal word for "growth") was developed in Vancouver, Canada funded by health and social services to address the specific needs of pregnant and parenting Aboriginal women with substance use issues living in a high-risk neighborhood. Sheway takes a woman-centred, harm-reduction, culturally-focused approach to providing services. In many ways, the Sheway program is similar to New Choices and other integrated programs for pregnant or parenting women with substance use issues and their children. However, in addition to serving Aboriginal clients, Sheway is an Aboriginal program in that it emphasizes Aboriginal health, healing practices, and culture (diet, ceremonies, arts, and crafts). The additional services and the different approach to services is achieved through the availability of Aboriginal staff, who provide services from an Aboriginal worldview.

Sheway program objectives include 1) assisting clients in improving their living situations and nutrition and 2) through education, substance use treatment, and prenatal care, reducing the proportion of infants born with problems associated with prenatal exposure to substances. Prenatal services are available on a drop-in basis and in a welcoming atmosphere. Primary medical care is provided daily by physicians and two community health nurses. Nutrition is addressed through a hot lunch program, food bags, food vouchers, nutritional supplements, vitamins, and nutritional counseling. Social workers, outreach workers, peer support workers, infant development consultants, and an addictions counselor support clients in securing housing, baby clothes and other items, legal support, social support, and counseling. Sheway's postnatal services are available for 18 months after the child is born. Women continue to receive the services available to pregnant clients, as well as assistance with infant feeding, immunizations, and developmental services. The Sheway program offers its services through drop-in, outreach, crisis intervention, advocacy, support and connecting with other services, all with the aim of reducing barriers to care and harms associated with the determinants of health for women and their children.

Evaluation of Programs

Evaluations of Aboriginal Programs

Several investigators have completed naturalistic follow-up studies and qualitative studies of Aboriginal treatment programs (e.g., Edwards, 2003), but there are very few randomized trials. Gray, Saggers, Sputore, and Bourbon (2000) conducted a systematic review of literature on alcohol abuse interventions for Aboriginal Australians. They identified 14 studies examining a range of intervention strategies and found that most interventions had limited impact. However, weak methodologies were employed and interventions were under-resourced, making the results questionable. Jiwa, Kelly, and St. Pierre-Hansen (2008) conducted a systematic review of international literature (published in English) on community-based Indigenous substance abuse interventions. They identified 34 relevant articles, most of which were opinion pieces or program descriptions. They found that, in many Aboriginal communities, treatment for substance abuse involves referral to distant residential treatment programs, relapse after returning home is common, and there is little or no aftercare. The literature on Aboriginal community-based treatment programs "emphasizes the importance of viewing addiction through a sociocultural lens and enhancing community empowerment in the development of programs. However, there is a paucity of evaluation and outcome data for these programs" (Jiwa et al., 2008). They concluded that community-based addiction programs may be appropriate alternatives to distant residential addiction treatment, with key components of success being strong leadership, strong community engagement, adequate funding, and long-term sustainability.

There may be several reasons why literature in the area of Aboriginal substance use treatment is largely descriptive. First, there are methodological difficulties in applying standard research designs to many Aboriginal programs, including objections that it is not appropriate or ethical (e.g., Gray et al., 1995; Humphrey, 2001; Sibthorpe et al., 2002). Secondly, it is difficult to obtain funding for single program evaluations. Thirdly, few researchers work in the area and their work is time-consuming as it relies on the

establishment of long-term relationships with Aboriginal community members and commitments to build Indigenous research capacity (Gray et al., 2006). Other reasons include a lack of resources, shortage of trained personnel, lack of agreement (between funders and programs) about the objectives of the projects and appropriate indicators of success, and, given the history of appropriation of Indigenous knowledge internationally, hesitation among community members to trust non-Aboriginal researchers (Cram, 2001; Gray et al., 1995; Humphrey, 2001; Sibthorpe et al., 2002).

Evaluations of Integrated Programs

Quantitative studies of integrated treatment programs for pregnant or parenting women with substance use issues and their children suggest that they are associated with positive outcomes for women and children, such as reduced substance use and improved mental health, parenting, birth outcomes, and child development (e.g., Field et al., 1998; Hughes et al., 1995; Motz, Pepler, Moore, & Feldman, 2006; Niccols & Sword, 2005; Uziel-Miller, Lyons, Kissiel, & Love, 1998; Volpicelli, Markman, Monterosso, Filing, & O'Brien, 2000). In their systematic review of 38 studies of substance abuse treatment for women, Ashley et al. (2003) identified prenatal services and child care as treatment components associated with positive outcomes (including longer length of stay and higher rates of treatment completion). However, the quality of the studies varies from randomized trials to less rigorous designs, many studies are limited by inadequate statistical power (small sample size), and few involve comparison groups. Orwin et al. (2001) conducted a meta-analysis of studies on the effects of substance abuse treatment for women on substance use, maternal well-being, and pregnancy outcomes. Findings suggested that enhancing women-only treatment programs with prenatal care or therapeutic child care added value above and beyond the effects of standard women-only programs. To include more recent studies and address specific questions about potential moderating factors, further meta-analytic research on studies of integrated programs is ongoing (Niccols, Milligan, Henderson, Sword & Thabane, 2007).

Evaluations of Sheway

There have been three evaluations of the Sheway Project. The first evaluation involved a mixed methods approach, including a qualitative focus group interview with 18 clients, key informant interviews with 34 staff and allied service providers, and chart review (Poole, 2000). The evaluation documented the success of the Sheway project in engaging women in accessing pre- and postnatal care and client satisfaction with the services. The outcomes for women served in 1998 were described in nine key life areas that corresponded to nine areas of service provided by Sheway and demonstrated a reduction of harms associated with the determinants of health. For example, at intake, 70% of women did not have medical care, 79% had nutritional concerns, and 65% had housing concerns. At the time of delivery, 91% were connected to a physician or midwife and, at 6 months postnatal, only 4% and 6% had nutritional and housing concerns, respectively. The study also identified the need for further service developments with ideas to expand services and increase the size of the facility.

Benoit et al.'s (2003) study also included a focus group interview with Sheway clients, who reported liking the fact that so many things they needed were available on site, including

doctors and child development workers. They also reported appreciating the welcoming atmosphere, peer support, instrumental assistance (e.g., hot lunches, baby formula, diapers), support in a crisis, and specific elements of the Aboriginal approach (e.g., informal service delivery, non-hierarchical communal relationships, holistic values and structures). Findings suggested that clients view the Sheway program as safe, supportive, and encouraging. Critical comments included complaints about the cramped, over-crowded facility and lack of services for older children and formal parent training.

Marshall et al. (2003) evaluated Sheway's infant services using a variety of methods including four focus group interviews with 29 current and former clients, individual interviews with 17 staff and allied service providers, and a chart review for all clients served in the 10 years since Sheway's inception ($N = 1247$). In the focus groups, clients specifically mentioned appreciating the low barrier protocol (e.g., with few rules, forms, or scheduled appointments, and a "living room atmosphere"), the integrated team (interdisciplinary, cooperative), the Aboriginal staff and culture (diet, ceremonies, arts, and crafts), assistance in meeting child protection standards of care, the empowering role of themselves in the program (i.e., self-determination), and practical supports (e.g., accessing a baby stroller). Despite the challenges with missing data in client files, statistical information documented Sheway's success in engaging women in accessing pre-and postnatal care (with 100 clients served in each year but the first two years of the program) and the link between service use and infant well-being (e.g., significant correlations were observed between infant birth weight and gestational age at admission, time in prenatal care, and receiving food bags at Sheway).

Conclusions

Women with substance use issues have additional needs related to their relationship problems, poverty, trauma (childhood abuse and domestic violence), mental health problems, and difficulties accessing conventional services. These issues are compounded for Aboriginal women, who have high rates of substance abuse, poverty, family violence, and trauma related to the intergeneration effects of colonization. Available research suggests that women-specific treatment addressing these needs can improve treatment engagement and outcome.

As approximately one third of substance abusers are women of child-bearing age, substance use among pregnant and parenting women is a major public health concern. Prenatal exposure to substances can significantly impact child development, as can the parenting challenges faced by mothers with substance abuse issues. Given the complex needs of pregnant and parenting women with substance abuse issues and their children, there is an urgent need for interventions to assist these families in achieving better outcomes. In this paper, we have described New Choices as an example of an integrated treatment program providing a range of comprehensive, coordinated, and individualized support services addressing women's social and mental health needs as well as children's needs through parenting and childcare, and the potential benefits to maternal and child well-being.

For no group is the need for an integrated approach to treatment more apparent than for Aboriginal women and their children. There are few comprehensive and culturally-relevant programs for Aboriginal women with substance use issues and their children, despite their high needs. Existing research suggests a number of recommendations. First, trauma is implicated in the etiology of Aboriginal mothers' substance use, which suggests both addressing trauma healing in addiction treatment and the need for additional research in this area (Poole & Greaves, 2007). Secondly, as the interconnection between Aboriginal women, their families, and their community has been stressed in findings from qualitative studies, the process of recovery needs to focus on resiliency and strengths within Aboriginal women (by addressing empowerment, self-esteem, and identity), their families, and their communities. There is a need for "services that address the interconnection and overlapping of risk factors rather than try to deal with interconnected issues in isolation" (Varcoe & Dick, 2007, p. 183). Simply stated, the social origins of Aboriginal women's substance abuse problems require social solutions (Assembly of First Nations, 2006; Kirmayer, Simpson, & Cargo, 2003). It is recommended that addiction treatment services address coexisting trauma and mental health concerns holistically and simultaneously, within an Aboriginal worldview, using a strength-based approach that includes cultural components and links the support of mothers with their children (Langlois, 2008). However, these recommendations remain to be rigorously evaluated.

There are few studies of treatment programs for Aboriginal mothers with substance abuse issues and their children. Findings from evaluations of Sheway suggest that this integrated Aboriginal program may be helpful, but the studies are of limited quality in terms of research design and methodology. Clearly there is a need for more research on treatment for Aboriginal mothers with substance abuse issues and their children, in cooperation with Aboriginal community organizations (Gray et al., 2000), involving prospective studies with randomized designs, larger samples, and full descriptions of the target population and the intervention program. The field will advance only as researchers conduct high quality studies that manipulate treatment conditions, rather than examining them post hoc. This type of research has the potential to move the field forward, inform policy makers and service providers, reduce costs (in terms of neonatal intensive care, etc.), and, ultimately, improve the health and well-being of this high-risk population through enhanced service delivery.

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