A HARM REDUCTION APPROACH FOR WOMEN WHO USE ALCOHOL IN PREGNANCY: STRATEGIES FOR NP PRACTICE

by

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Abstract
A significant percentage of women in the United States and Canada continue to use alcohol in pregnancy despite the clear recommendations of total abstinence from policy makers. Abstinence as an approach fails to recognize the connections between alcohol use in pregnancy and social context. Harm reduction strategies broaden the range of approaches that NPs can draw from when working with women. This change can be enacted by incorporating the underlying principles of harm reduction into NP practice at the clinical, policy, and research levels. By using a multilevel approach, NPs can increase the likelihood of long term, positive health outcomes for women who consume alcohol in pregnancy and their children.
A Harm Reduction Approach for Women who use Alcohol in Pregnancy: Strategies for NP Practice

Alcohol use in pregnancy is a significant health issue that persists in the United States and Canada despite the established recommendations of abstinence (United States-Center for Disease Control (US-CDC), 2015; Greaves, Poole, & BC Centre of Excellence for Women's Health, & Centre for Addiction and Mental Health, 2007). Nurse Practitioners (NPs) are uniquely positioned to positively impact the health of women for whom abstinence is not a possibility by appreciating that alcohol use during pregnancy is a complex, multifaceted issue requiring a broad range of approaches. Interventions that require change at the individual level, such as abstinence, tend to neglect social context and often fail to address the root causes of alcohol use in pregnancy. In this article, harm reduction, which can be defined as a set of practical strategies that aim to reduce the consequences associated with substance use (Harm Reduction International, 2016; Pauly 2008), is introduced as an approach that can be used by NPs. Understanding that abstinence is not possible for some women allows for encouragement of reduction of alcohol use at any level. The purpose of this paper is to discuss harm reduction as a potential entry point for engagement with women regarding their alcohol use and to provide practice recommendations to guide NPs when working with women who use alcohol in pregnancy.

Background and Context

In order to understand this issue, the broader contextual factors that shape a woman’s use of alcohol during pregnancy must be considered. Both the high rates of alcohol use in the general community and the presence of certain contextual social factors play a role in women’s alcohol use. NPs must be aware of these links when working with women who are pregnant or may become pregnant in order to provide effective care in an effective and conscientious manner.
Rates of Alcohol Use in Pregnancy the United States and Canada

Consuming alcohol is a common social activity for women in the general community; in 2015 in the United States, 53.6% of non-pregnant women reported using alcohol, and 18.6% of non-pregnant women reported binge drinking in the last 30 days (US-CDC, 2015). In Canada in 2009, 73.4% of all women over the age of 15 reported consuming alcohol within the last 12 months (Health Canada, 2009). Despite the preponderance of health promotion campaigns targeting reduction of substance use in pregnancy (US-CDC, 2015; Greaves et al, 2007) women continue to use alcohol in the prenatal period. In 2015 in the United States, 10.2% of pregnant women reported having at least one alcoholic beverage and 3.1% of pregnant women reported binge drinking in the last 30 days (US-CDC, 2015). In 2009 in Canada, 10.5% of women reported consuming alcohol in pregnancy, and 62.4% of women reported drinking in the three months prior to becoming pregnant (Public Health Agency of Canada, 2009). Additionally, these figures are likely underreported due to the significant stigma associated with perinatal alcohol use, and may underrepresent women struggling with housing, social, or economic issues (Greaves et al., 2007). Given that the majority of women in the overall population in the United States and Canada report alcohol use, it is not surprising that a substantial portion of women continue to use alcohol in pregnancy. Drawing on perspectives from both countries is helpful as Canada is a leader in health promotion and harm reduction (Kirk, Tomm-Bonde, & Schreiber, 2014) and can be used as an example of how alcohol use in pregnancy can addressed using harm reduction strategies.

Social Context of Alcohol Use in Pregnancy

In addition to the established and widespread use of alcohol in the general community, the social contextual factors that affect individual women also play a role in shaping alcohol use patterns during pregnancy. The literature shows a connection between trauma, interpersonal
violence, structural inequities, and alcohol use in pregnancy (Greaves et al, 2007; Varcoe et al, 2014). However, continued use is not confined to one particular group or subsection of the general population, and the characteristics of women using alcohol during pregnancy are varied (Frankenburger, Clements-Nolle, & Yang, 2015; Walker, Al-Sahab, Islam, & Tamim, 2011). In the United States, being single, having a college education, and women aged 35-44 were noted to have the highest prevalence of perinatal alcohol use (US-CDC, 2015). In Canada, it was found that pregnancy unwantedness, presence of depression, and concurrent use of tobacco or illicit drugs were the strongest predictors of alcohol use in pregnancy, but indicators regarding socioeconomic variables, age, and marital status were inconclusive (Walker et al., 2011). Other factors that have been linked to increased consumption include frequent pre-pregnancy alcohol use, past or current intimate partner violence, unemployment, minimal social support, and lack of education about the effects of alcohol in pregnancy (Carson et al, 2010; Frankenburger et al, 2015; Walker et al, 2011).

Another example of the influence of social context can be seen in the correlation between adverse childhood experiences (ACEs) and alcohol use during pregnancy (Frankenburger et al., 2015). ACEs are measured by a scoring system in which a higher score indicates an increased number of these adverse experiences (Anda et al., 2006). ACEs can disrupt normal development of neurocognitive function in the brain during a person’s formative years (Danese, & McEwan, 2012) which can limit the ability to manage stress in adulthood (Anda et al., 2006). The consequences of ACEs are known to have long-lasting effects – potentially up to fifty years after the experiences occurred (Felitti et al., 1998). Frankenburger et al. (2015) found a strong, graded relationship between alcohol use in pregnancy and presence of ACEs, even after controlling for covariates such as pre-pregnancy alcohol use, depression, and smoking. This finding is consistent with the growing literature on ACEs and their association with poor general health in
adulthood including women in the perinatal period (Anda et al., 2006; Barrios et al., 2014; Chung et al., 2010 Felitti et al., 1998; Leeners, Rath, Block, Görres, & Tschudin, 2014; Nelson, Uscher-Pines, Staples, & Grisso, 2010). This strong body of evidence helps to illustrate that for most women, the reasons for alcohol use during pregnancy are varied and often multi-factorial, and intersect with social context. In addition to gaining awareness of the social context of alcohol use, NPs can gain further insight into the complexities of alcohol use during pregnancy by understanding that the effects of alcohol on fetal health is not entirely clear.

**Weighing the Evidence and Examining Guidelines**

In order to conduct research and provide recommendations regarding alcohol use during pregnancy, agencies and researchers provide parameters for what constitutes moderate, heavy, and binge alcohol use; however, as shown in Table 1, there is some variation in these definitions.

**Table 1. Definitions of moderate, heavy, and binge drinking for women**

<table>
<thead>
<tr>
<th>Group</th>
<th>Moderate</th>
<th>Heavy</th>
<th>Binge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Center on Substance Abuse (2013)</td>
<td>&lt; 3 drinks per day and &lt; 10 drinks per week (Defined as low-risk)</td>
<td>&gt; 3 drinks per day and &gt; 10 drinks per week</td>
<td>&gt; 4 drinks on one occasion</td>
</tr>
<tr>
<td>National Institute on Alcohol Abuse and Alcoholism (2015)</td>
<td>1 drink per day</td>
<td>&gt; 5 drinks on the same occasion of each of 5 or more days in the past 30 days</td>
<td>&gt; 4 drinks in 2 hours</td>
</tr>
<tr>
<td>United States – Center for Disease Control (2016)</td>
<td>1 drink per day</td>
<td>8 drinks per week</td>
<td></td>
</tr>
<tr>
<td>Flak et al., (2014)</td>
<td>0-6 drinks per week</td>
<td>&gt;1 drink per day</td>
<td>&gt; 4 drinks in 2 hours</td>
</tr>
<tr>
<td>Henderson (2007)</td>
<td>&lt; 12g* per day or &lt; 84g per week</td>
<td>&lt; 12g per day or &lt; 84g per week</td>
<td></td>
</tr>
<tr>
<td>Skogerbø et al., (2013)</td>
<td>&lt; 5 drinks per week</td>
<td>&gt; 5 drinks per week</td>
<td>&gt; 5 drinks on one occasion</td>
</tr>
<tr>
<td>Walker et al., (2011)</td>
<td>1 drink per day</td>
<td>&gt; 1 drink per day</td>
<td>&gt; 4 drinks on one occasion</td>
</tr>
</tbody>
</table>

*12g = 1 standard drink
There is clear evidence that binge drinking and heavy drinking during pregnancy is associated with adverse fetal effects (US-CDC, 2015; Flak et al., 2014; SOGC, 2010). However, there is a lack of consistent evidence linking adverse fetal effects to moderate amounts of alcohol use in pregnancy (Flak et al., 2014; Henderson, Gray, & Brocklehurst, 2007; O’Leary & Bower, 2012; Skogerbo, et al., 2013). In order to understand how this somewhat equivocal evidence can be incorporated into clinical practice NPs can refer to national guidelines. Clinical guidelines for women’s health issues, including recommendations for alcohol use in pregnancy, are produced by the United States Center for Disease Control (US-CDC) and the Society of Obstetricians and Gynaecologists of Canada (SOGC) The US-CDC recently released recommendations for alcohol use in pregnancy stating that all sexually active women who are not using birth control should “stop drinking altogether” (US-CDC, 2016). In order to achieve this, the US-CDC recommends that health care professionals, including NPs, provide alcohol screening and brief counseling for all women, recommend birth control to sexually active women who drink and who are not planning to get pregnant, and refer women to additional services for those who cannot stop drinking on their own (US-CDC, 2016). In Canada, the SOGC (2010) expresses that there is insufficient evidence to define a practical threshold for use of low levels of alcohol in pregnancy and thus recommends abstinence. However, the SOGC acknowledges that interventions that consider family, culture, and gender need to be available for women who are unable to refrain from alcohol use. It is important to note that both the US-CDC and SOGC acknowledge that abstinence may not be possible for all women during pregnancy.

While moderate alcohol use has not been reliably shown to cause fetal harm, there is consistent evidence of fetal harm with heavy and binge drinking (Flak et al., 2014; Henderson, Gray, & Brocklehurst, 2007; O’Leary & Bower, 2012; Skogerbo, et al., 2013). Given this evidence, it is reasonable that policy makers across the United States and Canada advise
abstinence from alcohol as the safest choice during pregnancy; however, the way in which this message is presented can have a significant impact (Greaves et al, 2007). The commanding and pervasive recommendation of abstinence from powerful national organizations such as the US-CDC and SOGC can appear to offer a simple answer to an issue that is, in actuality, nuanced and complex. The abstinence message indicates to women that any level of alcohol use causes damage, but this does not consider the lack of evidence for fetal harm associated with moderate alcohol use. By being aware that the effects of alcohol on fetal health is dependant on the level of use, NPs can be better prepared to provide appropriate education and support for their patients.

Total abstinence, as the only solution, is limited because it does not provide a contextual and personalized road map for addressing alcohol use during pregnancy.

**Conventional Approaches to Alcohol Use in Pregnancy: Advantages and Limitations**

Population based quantitative results of applying abstinence as a policy can be seen in the 2015 report from the US-CDC which showed that while 53.6% of the overall population of American women use alcohol, only 10.2% of American women use alcohol during pregnancy (US-CDC, 2015). This is also true in Canada, where the 2009 report showed that 73.4% of Canadian women report alcohol use and only 10.5% of Canadian women report alcohol use during pregnancy (Health Canada, 2009; Public Health Agency of Canada, 2009). However, 10% of women continue to use alcohol during pregnancy, indicating that abstinence as a blanket policy is ineffective in some cases. Importantly, abstinence tends to imply an excessive focus on individual-level behavior changes, and fails to fully recognize and address the social contexts of women’s lives; it can also, both explicitly and inadvertently perpetuate social stigma.

The commonly-accepted primary goal of abstinence as a blanket recommendation for women is the prevention of fetal harm related to fetal alcohol spectrum disorders (FASDs) (O’Leary & Bower, 2012). This over-emphasis on fetal health, as opposed to maternal health,
has led to the perception that pregnancy is the main entry point for addressing substance use in women (Greaves et al., 2007). Pregnancy often provides women with the opportunity to consider their alcohol and substance use patterns, however, the often singular focus on fetal health tends to disregard the pre- and post-pregnancy contexts of the women’s life and social circumstances. The factors that shape a woman’s social context prior to the onset of pregnancy have been shown to influence the use of alcohol use in pregnancy (Carson et al, 2010; Frankenburger et al, 2015; Walker et al, 2011), and the conventional approach of abstinence is limited as it does not recognize or attempt to make changes prior to the onset of pregnancy. The evidence supporting the link between ACEs and increased alcohol use in pregnancy highlights the importance of implementing interventions in the pre-pregnancy state. It is also essential to provide interventions that aim to support women in the post-pregnancy state because healthy babies require healthy mothers, and if health promotion interventions end after pregnancy, they fail to make effective long term improvements for families (Greaves et al, 2007).

As a health promotion strategy, abstinence puts the onus on the individual woman to make a “lifestyle” change through behaviour modification – a process that does not come without considerable difficulty and sustained effort (Rice, 2011). When interventions are aimed at the individual, they tend to neglect the social context, and the root causes contributing to the behaviour may be overlooked (Rice, 2011). In the United States and Canada, where alcohol is socially acceptable, heavily advertised, and easily accessed (Varcoe et al., 2014; Marchetta et al., 2012), total abstinence requires adopting a behaviour that differs from the general community (O’Leary & Bower, 2012). In order counteract this responsibility that is placed on the mother, there must also be interventions that aim to decrease overall drinking in the general population, and redefine what is considered to be normal alcohol consumption (Braillon & Bewley, 2015; O’Leary, 2012). This may include interventions such as increasing taxes on alcohol, placing
limits on advertising alcohol (similar to tobacco), and providing nation-wide recommendations for decreased alcohol use (Marchetta et al., 2012; O'Leary, 2012). While these types of interventions may not be a popular solution where alcohol use is widespread, it is not reasonable to expect women to make a significant behaviour change without attempting to influence the contextual social factors that have shaped the issue to in the first place (Braillon & Brewley, 2015).

Messages promoting abstinence, while pertinent given the low threshold in which fetal harm can occur, need to be presented in a balanced way with the goal being to prevent harm (O’Leary & Bower, 2012). Messages from the CDC such as “100% of fetal alcohol spectrum disorders are completely preventable” and “drinking while pregnant costs the US $5.5 billion” (US-CDC, 2016) perpetuate blame and judgment, and are counterproductive in reducing stigma around drinking in pregnancy. This stigma can contribute long term harm to both women and children as women who use alcohol during pregnancy may avoid accessing medical and social care for fear of judgment, or punitive measures such as removal of their child by child welfare authorities (Varcoe et al., 2014; Greaves et al., 2007). Instead of solely aiming health promotion initiatives at improving fetal health and using pregnancy as a window of opportunity to treat substance use, a more flexible and realistic response is required.

**Integrating Harm Reduction in Primary Care**

While harm reduction was initially proposed as a means of addressing the negative effects of drug use in non-pregnant populations, the underlying principles can be used to widen the range of approaches that NPs can draw on when working with women who use alcohol in pregnancy. These principles include the following actions: reducing stigma, removing judgement, promoting dignity and respect, empowering people to help themselves and support others, as well as providing an ethical response to people in need (British Columbia Ministry of
Health, 2005, Pauly, 2008). By accepting that for some women, abstinence is not a possibility, the door is opened for encouraging any level of reduction in alcohol use. This shift in perspective is integral to reducing stigma, creating a more positive and empowering environment, and increasing the likelihood that women struggling with alcohol use in their pregnancy will feel comfortable accessing treatment (Greaves et al., 2007).

Harm reduction provides a value-neutral approach that refrains from making judgements and instead offers practical and realistic interventions. Harm reduction considers all people to be worthy of dignity and respect and prioritizes the immediate goals of those who use substances while also seeking to balance cost and benefit for both the individual and society (Pauly, 2008). Harm reduction approaches during pregnancy have been shown to decrease alcohol use, reduce health care costs, improve engagement and retention in prenatal services and substance use treatment, and improve health outcomes for women and their children (Greaves et al., 2007; Racine, Motz, Leslie, & Pepler, 2009). In order to achieve these desirable outcomes, NPs can implement specific harm reduction strategies. These include advocating for increased access to treatment services that are low barrier, emphasize relationship building, and provide physical and emotional safety; as well as assistance with child care and transportation in order to attend appointments (Poole, 2000). Additionally, offering access to program models that integrate on-site pregnancy or parenting services with substance use treatment and social services has been shown to be beneficial (Goler, Armstrong, Taillac, & Osejo, 2008). These strategies move away from lifestyle modification and instead offer interventions to address some of the social contextual factors that contribute to ongoing alcohol use in pregnancy (Greaves et al., 2007; Rice, 2011).

As noted above, the CDC and SOGC recognize the need for additional interventions for women who are unable to adhere to abstinence from alcohol during pregnancy. In Canada, for
example, harm reduction is acknowledged by the SOGC as a way to minimize harms to fetal health, establish realistic goals for positive change, and engage women in treatment or care who would otherwise not be able to participate if abstinence-based treatment approaches were the only option available to them (SOGC, 2010). In the USA, the US-CDC indicates that referral to additional services should be made for women who “cannot stop drinking on their own” (US-CDC, 2016). While both organizations recognize that some harm reduction strategies are needed, there are no specific details about how harm reduction might be implemented in practice. The focus remains on encouraging women to make individual behaviour change, and points a finger of blame at women who are unable to stop using alcohol in pregnancy, further perpetuating shame and stigma. Although harm reduction is increasingly recognized as an effective approach, researchers acknowledge that “despite some advances, particularly in the promotion of harm-reducing approaches for pregnant women with alcohol problems, we have a long way to go” (Poole, Urquhart, & Talbot, 2010, p. 3). This emphasizes the need for ongoing recognition of harm reduction as a health promotion approach, and for NPs, finding opportunities to implement harm reduction in practice.

**NP Practice Recommendations**

A multilevel response is required when addressing alcohol use in pregnancy and there are implications for NP practice at the clinical, policy, and research level. When caring for women who use alcohol in pregnancy, or who may be at risk of drinking in pregnancy, practice recommendations for NPs at the clinical level include the following:

- Understand the intersections between women’s social context and their alcohol use in pregnancy.
- Advise abstinence while utilizing harm reduction strategies to reframe the approaches used with women depending on their contexts:
NPs should focus on building trusting and compassionate relationships in which any level of positive change is celebrated and supported (Greaves et al., 2007).

NPs will need to engage in reflexive practice about their personal beliefs around substance use in pregnancy. NPs can reflect on whether they are conveying a non-judgmental approach by asking themselves questions such as:

- Am I aware of my own biases?
- How might my personal values, assumptions, and beliefs be affecting my care?

NPs should aim to create safe spaces and workplaces where women feel comfortable talking about their alcohol use in pregnancy (Varcoe et al., 2014; Greaves et al., 2007).

NPs can also make these changes by shifting the focus from prevention of fetal harm to instead having the health and well-being of the woman as the primary goal. By caring for the woman in this way, NPs will also care for the fetus and improve the health of the child (Varcoe et al., 2014).

At the policy level, NPs can lobby for more explicit integration of harm reduction into recommendations from national medical societies (such as the SOGC and US-CDC) to incorporate the underlying principles of harm reduction throughout the guidelines. Given the influence that the US-CDC and SOGC recommendations have on policies and interventions that affect women’s reproductive health, this type of policy-level approach will have a widespread effect. NPs can create change by advocating for things such as adding screening for ACEs as part of routine prenatal care for women (not just screening for alcohol use), while keeping in mind
that screening practices can be attractive in their simplicity but do not always result in significant change (Jewkes, 2013). Other policy changes may include an increase in funding for programs that are low barrier, provide a sense of safety, and minimize barriers to treatment such as need for childcare and lack of transportation (Greaves et al., 2007). At the research level, NPs can support, advocate for, and become involved in further investigations into links between social context and continued alcohol use in pregnancy. While the effects of ACEs on overall health throughout the lifetime is a rapidly growing body of research, there has been limited investigation into the relationship between alcohol use in pregnancy and further investigation is needed. All three levels of change must be targeted if effective, long term health promotion is desired.

**Conclusion**

Nurse Practitioners should consider incorporating harm reduction strategies into clinical practice when caring for pregnant women. Harm reduction strategies can include awareness of women’s social context, awareness of the NP's own personal biases, and enacting strategies for creating a safe space for patients. Identification of methods to support any reduction in alcohol use during pregnancy is a success, may help to improve long term health outcomes for women and their children.
References


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