Development of an alcohol liaison midwifery service in a health Trust in Northern Ireland

Abstract

Background **Consumption of alcohol is integrated into the social fabric of UK society and the guidelines for drinking alcohol during pregnancy have only recently been updated in the UK to a zero approach. There is clear evidence that alcohol may have an impact on both the ongoing pregnancy and the developing fetus.**

Aim **To identify and support pregnant women with a history of alcohol misuse.**

Methods **In 2013, one health Trust in Northern Ireland received support from the Big Lottery Fund to set up an Alcohol Liaison Midwifery service. This article provides an overview of the effect of maternal alcohol consumption during pregnancy and the development of a new alcohol liaison midwifery service.**

Findings **The aims of the service were achieved and due to the legacy from the educational programme some may be continued by midwives.**

Conclusion **The support required by the ongoing complex caseload of women with a history of alcohol misuse is dependent on a close working relationship between addiction and maternity services which requires a key central role to continue.**

Keywords

Midwifery | Pregnancy | Substance misuse | Alcohol

The global prevalence of alcohol use during pregnancy is estimated to be 9.8%, with an estimated prevalence of fetal alcohol syndrome in the general population of 14.6 per 10 000 people (Popova et al, 2017). There is an increasing focus on early intervention strategies to prevent potential long-term health problems, the root cause of which are often linked to lifestyle behaviours, and pregnancy is an ideal time to address issues that may impact on the future health of the fetus. Misuse of alcohol affects the individual and the family, and is reported to be a considerable economic burden to wider society, both nationally and globally (Burton et al, 2016). Consequently, health policies include an emphasis on reducing harm caused by alcohol misuse.

The UK alcohol strategy encourages hospitals to identify and support pregnant women who drink alcohol during pregnancy (HM Government, 2012). The Northern Ireland Department of Health, Social Services and Public Safety (DHSSPS) *New Strategic Direction for Alcohol and Drugs (Phase 2, 2011-2016)* states that: 'hidden harm is a priority and those at risk or vulnerable include children of substance-using parents and pregnant substance misusers' (DHSSPS, 2011). In addition, the *Strategy for Maternity Care in Northern Ireland 2012–2018* (DHSSPS, 2012) proposes to give every baby and family the best start in life by reducing the percentage of pregnant women who misuse alcohol or drugs (DHSSPS, 2012). Consumption of alcohol is integrated into the social fabric of UK society, as demonstrated in the Infant Feeding Survey (McAndrew et al, 2012), where 81% of mothers surveyed across the UK reported that they drank alcohol pre-pregnancy. The Infant Feeding Survey also found that 40% of the women (and 35% in Northern Ireland) reported having drunk alcohol during pregnancy (McAndrew et al, 2012).

Until recently, guidelines on consumption of alcohol during pregnancy in the UK advised pregnant women and women planning a pregnancy to avoid drinking alcohol in the first 3 months because it may be associated with miscarriage. If women chose to drink they were advised not to drink more than 1–2 units of alcohol once or twice a week and to avoid becoming intoxicated. In January 2016, the alcohol guidelines were revised and now it is advised that no alcohol should be consumed at any point during pregnancy (Department of Health and Social Care, 2016).

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Physiologically, alcohol crosses from the maternal bloodstream via the placenta to the fetus. The immature fetal liver has difficulty metabolising the alcohol, leading to potentially teratogenic blood levels (Cohen et al, 2017). Heavy maternal consumption of alcohol during pregnancy has historically been associated with infertility, miscarriage, low birthweight, pre-term births, stillbirth and fetal alcohol spectrum disorders (Nykjaer et al, 2014; British Medical Association, 2016). Fetal alcohol syndrome sits at the extreme end of potential fetal alcohol spectrum disorders, all of which are entirely preventable if women choose not to drink alcohol during pregnancy.

The evidence relating to the effects of low level drinking is mixed. However, a direct effect of low level drinking on fetal brain function and responses has been demonstrated (Hepper et al, 2012), where the fetus of a mother who drank one glass of wine displayed distinctly different movements on ultrasound scan for some hours afterwards compared to the fetus of a non-drinker. This research provided evidence that any maternal consumption of alcohol during pregnancy has a direct effect on the developing fetus, regardless of the level of alcohol required to cause long term effects. Therefore the only safe advice to avoid any risk to the fetus is no alcohol during any stage of pregnancy.

The role of the alcohol liaison midwife

The role of alcohol liaison midwife was the first specialist alcohol midwifery role in Northern Ireland. It was initially funded by the Big Lottery Fund for 3 years from 1 October 2013 as one of eight services in the Impact of Alcohol portfolio in the Southern Health and Social Care Trust (SHSCT). The Impact of Alcohol is a nationwide programme that aims to address the harm caused by alcohol misuse. Funding for the Alcohol Liaison Midwifery service has since been extended until March 2018.

Aim and objectives of the post

The overall aim of the alcohol liaison midwifery position was to work with other teams to develop a specialist midwifery service to identify and support pregnant women with a history of alcohol misuse. The creation of the role also generated the following objectives:

- Increase awareness of the effect of alcohol consumption during pregnancy
- Improve screening, to identify women who drink alcohol during pregnancy
- Deliver brief advice to pregnant women, related to alcohol consumption
- Support pregnant women with complex needs where alcohol has been a factor.

An essential aspect of this specialist midwifery role was developing a good working relationship with addiction services, facilitating good communication where both specialties were able to learn from each other and provide appropriate services for this population. As this was the first dedicated midwifery service of this kind in Northern Ireland, it was essential to consult with alcohol liaison nursing services and similar established services in the Republic of Ireland and the UK.

Increasing awareness of the impact of alcohol consumption during pregnancy

The alcohol liaison midwife service commenced before the alcohol guidelines changed in January 2016 to an abstinence approach during pregnancy. SHSCT were already promoting a 'No alcohol during pregnancy' message, which at the time was contrary to the existing guideline and written information in the literature available to pregnant women. This presented a challenge, as new leaflets had to be produced to explain the reason for the Trust's message, which seemed incongruent with the information printed in their hand-held maternity notes and in health promotion booklets. Increasing awareness of the impact of alcohol during pregnancy was aimed primarily at midwifery staff, as they are often the primary source of information to pregnant women. However, many other professionals may interact with or be involved in the care of women during pregnancy, including those from other statutory, community and voluntary services. Therefore, in addition to providing education to maternity staff, the alcohol midwifery service also aimed to increase awareness to other Trust staff, community and voluntary groups and the wider general public within the health Trust area.

Staff education

An educational package was developed and delivered by the alcohol liaison midwife, and included background information; guidelines; a demonstration of units; research evidence; information on fetal alcohol syndrome, fetal alcohol spectrum disorders and neonatal abstinence syndrome; a screening tool and theories of behaviour change—all simple advice that could be provided by all midwives and the referral pathway. A video was sourced from the National Organisation for Fetal Alcohol Syndrome (NOFAS-UK) that clearly demonstrated the risks and research evidence related to drinking alcohol in pregnancy. A woman-centred approach was advised for delivering health promotion so that women could be involved in the decision-making process and that their knowledge and experience would be valued (Bowden, 2006). The suggested standard opening question of 'What are your thoughts about alcohol during pregnancy?' was found to facilitate a less directive and authoritarian conversation, where women were given information and were enabled to make their own decisions.

Table 1. Evaluation of learning from alcohol education sessions

Period of training: 29 January 2014—30 September 2014. Attendees: 98; evaluations returned: 65		
What is your knowledge level in relation to the following subject areas?	**Before training**	**After training**
Your knowledge of fetal alcohol syndrome	2.4	4.5
Your understanding of the impact of alcohol in pregnancy	2.9	4.7
Your understanding of units of alcohol	1.9	4.5
Your confidence in asking women about their drinking	2.3	4.3

Scores: 0=No confidence/knowledge; 1=Little confidence/knowledge; 2=Some confidence/knowledge; 3=OK level of confidence/knowledge; 4=Good level of confidence/knowledge; 5=High level of confidence/knowledge

Evaluation of the initial training sessions were positive and demonstrated good learning outcomes. The results of the evaluation are shown in *Table 1*.

Educational sessions were delivered from January 2014–March 2017, and were attended by midwives (n=239), addiction team nurses (n=29), neonatal nurses (n=23), midwifery students (n=16), student nurses (n=6), doctors (n=5), general nurses (n=4), maternity support workers (n=3) and social work students (n=1). In addition, information sessions, including an overview of alcohol in pregnancy and the role of the alcohol liaison midwife, were presented to relevant staff at SHSCT, including obstetric and medical hospital staff, midwifery managers, health visitors and health visiting team leaders, social work managers, and staff from Family Nurse Partnership, Children's and Adolescent Mental Health services (CAMHS) and the Alcohol Liaison Nurse Partnership. It was essential for the success of the project that other organisations and teams were aware of what the alcohol liaison midwifery service offered and were able to refer women appropriately.

Increasing general community awareness

Within the Trust, a series of alcohol awareness sessions were organised by the alcohol liaison midwife and held during Alcohol Awareness Week each year. Stands were established in the antenatal clinics in hospitals and in community clinics, where the alcohol liaison midwife was assisted by early intervention practitioners from the community addictions team. Health promotion posters and leaflets were used, alongside props, such as glasses with examples of units and beer goggles. Awareness sessions were also held in the community at local fairs.

Improving screening to identify women who drink alcohol during pregnancy

Early intervention is vital to reduce hidden harm caused by alcohol consumption in pregnancy, so services therefore need to be directed towards the first point of contact that a woman has with maternity care. The booking midwife may learn that the woman has a history of alcohol and/or drugs misuse from a letter from the GP, or may address alcohol consumption through a routine question on the electronic booking system, whereby the woman is asked whether she drinks alcohol and the number of units per week is entered on the system. However, investigation by the team of the responses to the alcohol question revealed a less than 1% disclosure of any alcohol consumed during pregnancy. There is a clear discrepancy between the disclosure figure of less than 1% and the previously cited figure from the Infant Feeding Survey (McAndrew et al, 2012) where 35% of women in surveyed in Northern Ireland stated that they drank alcohol during pregnancy. Problems with non-disclosure of alcohol consumption include:

- Information about the effects of alcohol not being targeted at those who need it
- Women who drink at harmful levels not receiving the support they require to stop drinking
- Increased risk of harm to the unborn baby
- A lack of accurate documentation of maternal history for future diagnosis of fetal alcohol syndrome or fetal alcohol spectrum disorders if required
- A missed opportunity to improve family health.

It is therefore important that midwives adopt an unprejudiced attitude to elicit a disclosure of alcohol misuse, as stigma has been cited as a main barrier to disclosure (Cohen et al, 2017).

Screening tool

Tools are available to assist with detection of alcohol consumption during pregnancy, and can assist the midwife in asking difficult questions. A systematic literature review of seven brief screening questionnaires to identify problem drinking during pregnancy (Burns et al, 2010) identified the T-ACE (Take [number of drinks], Annoyed, Cut down, Eye-opener); TWEAK (Tolerance, Worried, Eye-opener, Amnesia, Kut down) and AUDIT-C (Alcohol Use Disorders Identification Test-Consumption) as showing the most promise, with the AUDIT-C having the highest sensitivity and specificity (95% and 85% respectively). The AUDIT tool was first

developed by the World Health Organisation (WHO) as a simple way to screen for and assess excessive drinking (Babor et al, 2001). The AUDIT-C was derived from the original AUDIT tool, is shorter and therefore easier to administer. It is also available in different languages on the Public Health England website. The alcohol screening self-report tool used at SHSCT was adapted by the alcohol liaison midwife using the first 3 questions of the AUDIT-C screening tool, with the remainder to be asked on referral. Questions relating to pre-pregnancy drinking and to partner's drinking were added to the tool as they are indicators for women drinking alcohol during pregnancy (Skagerstrom et al, 2011).

The screening tool was tested in one clinic, where the views of women and midwives were considered before extending the tool across the Trust. Women were sent the screening tool with their appointment letter for booking and had the choice of completing it. The midwife conducting the booking interview collected completed forms when asking about drinking as part of the normal booking process. The screening tool facilitated a discussion around the risks of drinking alcohol in pregnancy, which was then reinforced with a leaflet. The screening form was designed to double as a referral form to the alcohol liaison midwifery service if a referral was indicated. A screening pathway was developed to provide guidance for staff and a box was placed in each main clinic area for weekly collection of screening tools.

The introduction of the screening tool has not transformed the number of responses received, but it has facilitated better discussion about alcohol consumption than before its introduction. Many women may truthfully respond that they are not drinking alcohol at booking as the timing generally coincides with symptoms of nausea, but they may drink later in pregnancy. Non-disclosure also remains a challenge; however, the screening tool highlights risk factors, such as a woman's drinking history and their partner's drinking, and training includes providing alcohol advice to all women regardless of response. Of the 1331 screening tools returned to the alcohol liaison midwife between February and September 2014, 2.1% (n=28) women responded that they were drinking during pregnancy, and were given advice by the booking midwife or consented to be referred to the alcohol liaison midwife.

Delivering brief advice on alcohol consumption to pregnant women

Brief interventions are research-proven procedures that can be used to work with individuals with at-risk alcohol use to motivate them to act to reduce harm (Babor and Higgins-Biddle, 2001). They are not designed for use with those who are alcohol dependent. The goal is to raise awareness and recommend change, using an intervention that can be delivered in a short space of time. A review of four randomised controlled trials on brief interventions to prevent alcohol use in pregnancy (Nilsen, 2009) reported that brief interventions were effective in reducing alcohol consumption, and that there was sufficient evidence for providing brief intervention in antenatal care to achieve reduced or no alcohol consumption during pregnancy.

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A brief advice tool was developed to aid discussion with women who have a history of alcohol misuse, or who were identified as drinking during pregnancy. Brief advice included discussing the risks to the woman and fetus if she drinks alcohol during pregnancy, the benefits for her and her baby if she does not drink, motivation to change and strategies to remain abstinent.

Pregnant women were initially referred at booking to the alcohol liaison midwife for brief advice on alcohol consumption during pregnancy. This approach was found to be unsuccessful as women declined to be referred, stating they did not drink during pregnancy and objecting to being seen by the alcohol liaison midwife. The approach was then changed, and women were referred for general health promotion, allowing the opportunity to address alcohol clearly and without causing offence while also addressing diet, physical activity, smoking, drugs, infections and travel during pregnancy. Partners were also invited to attend the health promotion session, as a randomised controlled trial to test the effectiveness of a brief intervention to reduce prenatal alcohol consumption reported most effectiveness when partners were included (Chang et al, 2005). This approach was welcomed by midwives as it saved them time, and it also reduced stigma for women as all pregnant women received general health advice.

Feedback was positive, with many women disclosing occasional glasses of wine or 'Guinness for iron' during the session—despite having said to the booking midwife that they were not drinking. The health promotion sessions facilitated more open discussion about lifestyle, with some women admitting to drinking alcohol occasionally during previous pregnancies while unaware of the risks. Overall, women were very receptive to advice.

Supporting pregnant women with complex needs where alcohol is a factor

Where the majority of women referred to the alcohol liaison midwife were seen once for brief advice, a subset of women were identified who had a history of alcohol or drug dependency. These women were seen at regular intervals throughout their pregnancy for support to remain abstinent.

The pathway to manage the care of pregnant women with complex needs was developed with guidance from the National Institute for Health and Care Excellence (NICE) in mind, which stated:

> ***'Pregnant women who misuse substances may be anxious about the attitudes of healthcare staff and the potential role of social services. They may also be overwhelmed by the involvement of multiple agencies. These women need supportive and coordinated care during pregnancy'. (NICE, 2010)***

The number of pregnant women in the complex caseload varied from 12–18, with a total of 126 women being supported from February 2014–September 2017. Women with a known history of alcohol misuse were given brief advice in relation to the risks for them and their baby if they drank alcohol during pregnancy. Often, these women were referred by the addiction team before they booked, although referrals were also received from community groups, other health professionals and booking midwives. Women who were identified as having a history of alcohol misuse and who consented to the service were followed through from booking to birth for ongoing support, and signposted to other services that could provide specialised advice relating to their relationship with alcohol, relapse prevention and dealing with cravings.

Throughout the course of supporting women with complex needs, it was necessary to liaise with a range of other services as required by each individual woman. These services included community addiction practitioners, community/hospital midwives, antenatal screening coordinators, health visitors, GPs, family nurse partnership practitioners, mental health practitioners, obstetricians, addictions consultants, neonatal unit staff, anaesthetists, hospital pharmacists, safeguarding nurse specialists, smoking cessation professionals, local councils, social workers, Surestart, Northern Ireland Housing Executive, Women's Aid, Mellow Bumps/Parenting Programme, Homecare, local and regional colleges, and local charities. Reports were compiled for pre-birth case conferences as appropriate.

This part of the service has continually evolved according to needs. Support has been modified and adapted as required to suit each individual, and varies due to the complex nature of the women's lives. As the interface between addictions and maternity, it was natural for the alcohol liaison midwife to also liaise in relation to women with other addictions. The complex caseload has therefore developed to include women with a history of misusing other drugs such as heroin, methadone, tramadol and codeine. This aspect of the service provided a central point of contact for midwives, obstetricians, addictions practitioners and community staff, and provided a more co-ordinated approach to care, which was particularly valued for management of methadone. This co-ordination also provided a smoother transition when clients were admitted to and discharged from hospital.

Women in the complex caseload were followed up postnatally and signposted to relevant services for ongoing support as required. Feedback from these women has been positive. One lady was very anxious about coming into hospital following what she perceived as a very negative experience during her previous admission. When asked about her care at her follow-up contact, she said she was delighted because she was treated just like any other pregnant woman.

Comments have mainly related to how women were treated rather than any medical or obstetric concerns. Women valued being listened to, the support they received and not being judged.

Conclusion

The message of 'no alcohol during pregnancy' has been given a boost by the introduction of the new UK guidelines, although there is still a need to provide support for women who have difficulty stopping drinking alcohol during pregnancy. Pregnancy can provide additional stress to many women, and for those with a history of alcohol misuse, stress can lead to relapse. Although there has been no formal external evaluation of the alcohol liaison midwifery service, the data collected by the Trust suggests that it is valued by staff and service users and has contributed to an increased awareness of the risks of drinking alcohol during pregnancy. The close working relationship between addiction and maternity services has been key to providing appropriate and effective support to this population; but with so many competing demands for funding, the future of the alcohol liaison midwifery service is uncertain. Due to the success of this project in increasing awareness and education of staff, the first three aims of the service can be continued by midwives. However, the final aim (to support women with complex needs where alcohol or drugs have been a factor) could benefit from having a named midwife in some capacity. There are many challenges to setting up a specialist service and the ability to adapt and evolve in response to the needs of service users is crucial. **BJM**

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Key points

- In the UK, guidelines on the consumption of alcohol have been updated to advise zero consumption of alcohol during pregnancy. Identification and support are nevertheless still needed for women who have a history of alcohol or drug consumption
- In one Trust in Northern Ireland, funding was received to establish an alcohol liaison midwifery service to identify and support women who consume alcohol during pregnancy
- The service developed links with a wide variety of heath and social care organisations, which helped to co-ordinate care for women with at-risk levels of alcohol consumption, resulting in positive feedback

CPD reflective questions

- What support is available in your setting to assist with difficult and sensitive conversations, such as those of alcohol use during pregnancy?
- What links does your service have for referring women with additional complex needs?
- How does your setting seek to educate women and health professionals on the dangers of alcohol consumption during pregnancy?

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