

Critical Analysis of Pregnant Women Smokers Accessing ‘Smoking Cessation’ Services in Wales

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ABSTRACT

The problem of smoking in pregnancy has remained a challenge to both public health professionals and the Government with the low uptake of smoking cessation services by pregnant women. Despite the evidence base for smoking cessation, services have neither been implemented consistently nor robustly across Wales. Hence the need to develop a service improvement project like ‘Models for Access to Maternal Smoking Cessation Support’ (MAMSS) to provide new ways of supporting pregnant women who smoke, alongside the current national Stop Smoking Services.

The aim of the study is to critically analyse how pregnant women smokers are accessing smoking cessation services in Wales.

The need for suitable training was reported amongst health professionals involved in providing smoking cessation service for pregnant women smokers. Most clients wanted to reduce and not stop smoking; also available opportunities were important in determining the ability to access and deliver services, with the use of Nicotine Therapy positively influencing the receptiveness of the pregnant women. Midwives were however reluctant to create an image of enforcing smoking cessation and a holistic approach was advocated by some staff members to encourage health education and health promotion. Overall, a specialist service such as that provided by the MAMSS project was viewed as appropriate.

Staff members understood their roles and the advantages of Nicotine Therapy in encouraging pregnant women to quit smoking. Specialist midwives made positive impacts on the pregnant smoker’s receptiveness to smoking cessation support. Both staff and pregnant women acknowledged that accessibility and

flexibility of service were key determinants of service delivery and service uptake, whilst incorporating an approach that is supportive rather than enforcing.

Keywords: Smoking cessation, Midwives, Health promotion, Health inequalities and Nicotine Therapy

INTRODUCTION

Cigarette smoking first became common in the United Kingdom during the first half of the 20th century, first among men and then among women (Peto et al, 2000). It is a major cause of illness, disability and death from diseases affecting the main organs in the body, with lung cancer being the most widely recognised (Peto et al, 2000). Smoking is estimated to result in premature death in half of smokers (Doll et al, 1994), and it is a major contributor to health inequalities with a higher percentage of smokers found in deprived communities (Richardson, 2001). It is also a contributing factor to non-fatal conditions such as impotence and visual loss; with a rise in predisposition to smoking-related illnesses the longer the lifestyle is maintained. Therefore giving up at any age has significant health benefits (Scottish Public Health Observatory, 2013).

It is thus not surprising that tobacco smoking is the most important potentially preventable cause of various adverse pregnancy outcomes including placental abruption, preterm birth (Lumley et al, 2009), doubling of the risk of sudden infant death syndrome (Flemming et al, 2013) and

the increased risk of miscarriage and stillbirth which accounts for 4000 deaths in the United Kingdom every year (McGowan et al, 2010). It is the single most important factor affecting low birth weight in developed nations (Hammoud, 2005), and a major preventable risk factor causally linked with morbidity and mortality (Mannino & Buist, 2007). This is of particular importance as the health effects are cumulative and substantial across a lifetime (Rattan, 2012), with possible neuro-developmental problems and retardation of foetal growth due to cigarette contents limiting oxygen supply and other required nutrients to the foetus (Crawford 2008; Herrman, 2008). Smoking in pregnancy is also strongly linked to low level of education, deprivation and poor social support (Wanless, 2004); and the problem of low birth weight leads to various health problems including coronary heart disease, obesity and type II diabetes (Lumley et al, 2009) which are problems that continue to plague society. Therefore the benefit gained by giving up smoking in pregnancy is immense, lifelong and beneficial to both mother and baby (Lumley et al, 2009; Al Mamun et al, 2006; O'Callaghan et al, 2009).

LITERATURE REVIEW

This paper reviews the evidence available on the access and delivery of smoking cessation interventions for pregnant women. It focuses on the need for an effective SSS whilst reviewing the referral, engagement and accessibility options available to staff and pregnant women within which training available is considered. In addition, the delivery of specialist stop smoking support was discussed to include ways of providing service holistically, whilst recognising the difficulties encountered in engaging pregnant smokers

The public health issue of smoking during pregnancy is one that continuously poses problems both for public health professionals and Governments. Methods of

reducing current prevalence are being frequently sought to reduce the associated harm caused by smoking in pregnancy. Several projects and research such as Setting Universal Cessation Counselling Education and Screening Standards (SUCCESS), Community Action on Tobacco for Children's Health (CATCH), and BREATHE (Albrecht et al, 2011; McGowan et al, 2010; Bryce et al, 2009) have been carried out to monitor the effectiveness of current services; and to find the most effective way to reduce the prevalence of smoking in pregnancy either by educating or engaging with young girls, younger & older women and current pregnant smokers. Health education and health promotion avenues need to be reviewed and refined consistently in order to ensure that all young girls and women are aware of the dangers of smoking in pregnancy and of the support available. Hence, it becomes important that services provided to support pregnant smokers are easily accessible with a mode of delivery that is flexible and appropriate to maximise the opportunities created to be in contact with, and engage pregnant women who smoke (Albrecht et al, 2011; McGowan et al, 2010).

A Cochrane review by Lumley et al (2009) suggests that continued smoking into late pregnancy can be reduced through the promotion of stop smoking interventions. Thus effective evidence based SSS is required to increase the uptake of service by pregnant women, and thus bring about an eventual eradication of the public health problem of smoking in pregnancy (Herberts & Sykes, 2012).

Most studies on this subject are largely quantitative and are reliant on measuring effectiveness mainly by quit rates (Willemsen et al, 2008; Khan et al, 2012; Costello et al, 2011), a review of the literature has therefore brought forward the need for more qualitative research in order to understand how to reduce the problems inhibiting the success of access and delivery

of smoking cessation interventions for pregnant women.

Brief Intervention Training

Brief intervention (BI) refers to a non-confrontational way of positively discussing smoking and quitting to encourage the thought of giving up smoking, and encourage accessing specialist support when a smoker is ready (Stop Smoking Wales, 2013). The most effective way of identifying and referring smokers who are pregnant was not addressed specifically in the literature even though many studies suggested that the appropriate identification and referral of these women is a way of improving access (McGowan et al, 2010). The study by McGowan et al (2010) seem to suggest that pregnant smokers may not voluntarily access SSS themselves but are more likely to respond through opportunistic BI conducted by health professionals. Brief intervention training empowers the health professional providing routine care to approach the issue of smoking in a client centred way (Lancaster & Fowler, 2008). However, the likelihood of seeking help by those who go on to take up the service after BI at some point during their pregnancy was not explored in the papers reviewed.

Opt-out Referral Pathway

Opt-out services where all pregnant women are automatically referred to SSS increased the opportunity for health professionals to engage with pregnant women who smoke with a possibility of an increase in service uptake (NICE, 2010; Bauld et al, 2012). However, the decision to take up the service ultimately lies with the woman regardless of opportunities provided to access or deliver smoking cessation services (NICE, 2010; Bauld et al, 2012). An opt-out service was found to be more beneficial overall compared to opt-in services where women were asked about their smoking habit, although there were no conclusions as to the best health professional to refer or provide behavioural

support (McGowan et al, 2010; Lumley et al, 2009). Some authors have suggested that using providers who already engage with supporting women is necessary (Borland et al, 2013). Whilst other literatures found that some providers such as midwives have found breeching the subject and offering support may put a 'strain' on the relationship between the health provider and pregnant woman (Bull, 2007).

Findings have shown that younger women have reported feeling isolated and would benefit from peer support (Radley et al, 2013). It is therefore essential for some women to have peer support as part of the opt-out system, this is especially so for younger women still living at home who have been relatively unsuccessful at giving up smoking and may find it easier to relate to someone similar to themselves. More so, this can also be used as an avenue for promoting pregnant smokers who have been successful not only at accessing and receiving stop smoking intervention but at giving up smoking whilst pregnant (Radley et al, 2013).

Accessibility

Various studies such as that by Borland et al (2013,) using semi-structured, in-depth interviews with service providers and pregnant women, seemed to view poor service uptake purely as a problem of accessibility. Poor service uptake was attributed to accessibility and engagement issues, and inconsistent provider practise. To reinforce this, other studies have shown that remoteness of location and human resource shortages can also affect whether targeted women are able to access services, or whether sufficient support is being provided for the delivery of services (Borland et al, 2013). Okolie et al (2010) found that health professionals in rural areas are less likely to want to engage a pregnant woman about her smoking habit. This could be as a result of rural areas consisting mainly of close-knit communities, leaving the health professionals reluctant to introduce any topic which may negatively

affect the health professional-pregnant woman relationship already in existence. This could mean addressing a training need for health professionals as there is a strong perception that midwives are very cautious and protective of maintaining a good relationship with pregnant women (Herberts & Sykes, 2012). Moreover, there was the recognition that although contact with women was required, the women still needed to be encouraged to take up the service (Ruggiero et al, 2003).

Another study using open ended questions found that barriers to accessing services were mainly due to lack of childcare, lack of time and work commitments but found that mothers who spoke more about the benefits of giving up smoking were more likely to access SSS (Ussher et al, 2006). This gives an understanding that whilst tackling barriers to accessing SSS such as advocating home visits, there should also be a 'stronger' message on the benefits of smoking cessation in pregnancy and at the same time the application of caution to avoid frightening pregnant smokers from accessing SSS (Bull, 2007).

STOP SMOKING SUPPORT

Mode of delivery

Two modes of contact between the health provider and the patient for service delivery were identified from current literature as telephone and face to face contact (Ferguson et al, 2012; Baha & Le Faou, 2009). The use of motivational telephone interviewing to deliver smoking cessation support was not always found to be useful (Ferguson et al, 2012; Baha & Le Faou, 2009), this may be because pregnant smokers find it easier to connect with staff during face-to-face contact when receiving support for such a sensitive issue. Interventions such as the BREATHE intervention using telephone support to deliver SSS to pregnant women was based on evidence from non-pregnant smokers who did not have the added pressure of pregnancy which is one of the reasons that

have been given for smoking in pregnancy (Baha & Le Faou, 2009).

Targeting stress factors

The current trend of tackling smoking cessation in pregnancy seems to focus on a holistic approach because stress from multiple sources appears to be a major hindrance to cessation. (Bull, 2007). Sources of stress include psychosocial factors relating to stigma, lack of social support and socio-economic pressure, it is therefore essential that methods of addressing these issues are considered when planning and delivering a SSS (Okolie et al, 2010; Bull, 2007; McGowan et al, 2010).

However, health professionals engaging with pregnant women felt better motivated to support pregnant smokers once they felt the women were ready to give up smoking and a multidisciplinary team was available to support the women's individual needs (Bull, 2007). There is an overall agreement that women who do not take up smoking cessation offers are generally not interested in giving up smoking (McGowan et al, 2010; Baha & Le Faou, 2009; Ussher et al, 2006; Borland et al, 2013) and are therefore less likely to access services available. Midwives and health visitors feel that the success of delivering SSS once accessed by pregnant smokers lie in the support received from evidence-based training, and professional support from senior colleagues relevant to pregnant smokers as well as family-friendly policies (Bull, 2007; Okolie et al, 2010).

Socio-economic Class

An unequal rate of access to SSS was found across social-economic classes with women from lower social classes more likely to smoke and not use to SSS (Lowry et al, 2004; McGowan et al, 2010). Ruggiero et al (2003) found that even with intensive recruitment methods coupled with incentives, 384 of 958 (40%) eligible pregnant smokers from a low income group refused to enrol in a smoking cessation programme.

In general, women from more affluent areas are more likely to successfully engage with SSS than those from deprived areas (Radley et al, 2013). Less affluent women are four times more likely to smoke just before pregnancy, twice as likely to be pregnant smokers and have higher possibilities of reverting back to smoking after having their babies (Bauld et al, 2012).

Because there is a certain demography of women who are more likely to be pregnant smokers such as those with mental health problems, teenagers and those of low income group; service uptake might improve if these women were targeted and services increased in areas with higher population of such demographics (Borland et al, 2013). This however might raise questions about inequitable service provision so that any such decisions will have to be carefully considered whilst factoring in issues of determinants of health, health needs assessments and cost effectiveness analysis. (Tappin et al, 2010; Radley et al, 2013).

Incentives

NICE (2010) suggested that the effect of using incentives is encouraging and even in the absence of concrete effectiveness evidence, the idea of incentivising stop smoking services is largely promoted by recent studies (Mantzari et al, 2012; Radley et al, 2013). However, incentives may encourage engagement, but they do not guarantee compliance or quit rates as indicated in the result of the study by Radley et al (2013) which idealises SSS and incentive schemes as being mutually exclusive, that is unable to occur together. Moreover studies like the comparative qualitative study by Mantzari et al (2012) found that motivation to stop smoking was the same in all pregnant women regardless of incentives. Incentives were more of an added bonus and not the main reason for trying to give up smoking in pregnancy.

Overall, regardless of incentives young women carrying their first pregnancy

feel more pressure to give up smoking than other mothers or those who have already been pregnant before. This might be as a result of struggling to transition into motherhood (Herberts & Sykes, 2012).

Difficulties with engagement

Some women do not attend stop smoking appointments even after referral by a health professional; this is because services provided are viewed as an absolute stop smoking when they only feel ready to reduce the number of cigarettes. Some women already struggling with trying to give up other substances such as alcohol, cannabis and other drugs will be unlikely to take up SSS even if a 'perfect' model of access and delivery is made available (Baha & Le Faou, 2009). They may either agree to an intervention with for example their midwife due to social pressure or agree but lose motivation once back in an unsupportive home environment.

It is important to mention that a 'stronger' public health message of the benefits of smoking cessation in pregnancy may not necessarily have as much impact as suggested by Bull (2007), especially with the study methodology used by studies such as that by Ussher et al (2006), which carried out internet based survey using two 10-questions questionnaires. An assumption was made that all who participated in filling the internet questionnaires were pregnant smokers, introducing response bias into their study. This had the potential to influence results of the analysis. Albeit, the study by Baha & Le Faou (2009) found that women not attending their stop smoking appointments after referral were likely to be in denial of the dangers of smoking which might support the relevance of 'stronger' public health messages on the benefits of smoking cessation in pregnant women. Moreover, Fendall et al (2012) reported the need for a prescriptive intervention after pregnant women during a focus group reported wanting to be told precisely the possible health outcome for themselves and the baby if they did not give up smoking.

Nicotine Replacement Therapy

The use of NRT has been advocated as a safe method of providing nicotine (the addictive but un-harmful substance in cigarettes) whilst avoiding exposure to the other harmful substances (NICE, 2013; Brose et al, 2013). The type of NRT reported to be helpful is the regimen which combines the use of a trans-dermal nicotine patch which is slow acting with the use of faster acting products such as gums, lozenges or inhalators (Stead et al 2012; NICE, 2013; NICE, 2010; Brose et al, 2013).

CONCLUSION

This paper has successfully explored the experiences and views of service users accessing and staff delivering SSS to pregnant women in Wales. Although some of the limitations have been recognised, both the service users and some staff reported that a specialist smoking cessation service for pregnant women was deemed most appropriate for supporting pregnant smokers than a non-specialist smoking cessation service, especially with the availability of home visits as part of service provided.

Recruiting pregnant smokers receiving existing SSW support for interviews proved difficult as no participants were recommended from the SSW service mainly due to poor clinic attendance. Therefore all pregnant smokers in the paper were receiving a specialised smoking cessation service and they all agreed feeling supported. The women felt that the specialist midwife's professional background allowed a better relation with her as a supporting health professional and could provide a more flexible service. Midwives were seen as accessible especially in early pregnancy. However, not all the midwives in this paper acknowledged smoking cessation support as being part of their role, this was explained to be as a result of lack of appropriate training and time required and due to other commitments.

Nicotine Therapy was yet to be routinely used in practise by all midwives. Its potential and that of having specialists who are midwives, at influencing pregnant women who smoke to accept smoking cessation will need further study.

Motivation was closely linked with being pregnant and having an appropriate support system. Moreover, pregnant smokers were more likely to be from deprived areas and generally prefer to cut down than given up smoking completely. Stress was reported as a major factor in the inability to give up smoking, with monetary incentives not necessarily contributing to the motivation to give up. Several barriers to smoking cessation were found and reported within this paper with deprivation, a smoking background, personal perception of stigma, the possibility of attending group stop smoking sessions and lack of flexibility were noted as some of the main reason for poor service uptake.

To conclude, members of staff were seen to understand their roles and were aware of training requirements to provide a better service. Although advisors recognised the barriers to service imposed by their job role because they were not specialist, majority of the barriers to service were characteristic of the usual care provided by SSW advisors. Both staff and pregnant women acknowledged that accessibility and flexibility of service were key determinants of service delivery and service uptake, with motivation and having a wider support network being integral to the success of service uptake and successful quitting. Overall, it is unlikely that the problem of smoking in pregnancy will come to an end with the intervention of specialised services only. However, wider strategies can be directed at young school-aged girls to promote a non-smoking mind-set from a young age by introducing health programmes into schools for girls across Wales, as well as the use of peer support by all pregnant smokers to further promote and support smoking cessation amongst this group of women. It should however be

acknowledged that pregnant smokers needed to have a specialised service in order to provide a tailored smoking cessation service capable of improving service uptake and quit rates.

Recommendation

The Welsh Government should focus on wider tobacco control initiatives to reduce smoking, as well as providing smoking cessation services.

All midwives should practise the use of Nicotine Therapy.

A specialised smoking cessation service model should be adopted for pregnant women in Wales and should offer a more suitable service to support pregnant women.

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