Public Health Research Consortium

Using qualitative research to inform interventions to reduce smoking in pregnancy in England: A systematic review of qualitative studies

- Smoking in pregnancy is a socially patterned risk; compared to women in more advantaged circumstances, women in disadvantaged circumstances are more likely to smoke prior to pregnancy and less likely to quit.

- England's 2011 *Tobacco Control Plan* emphasises the importance of interventions that take account of social factors that make it hard for smokers to quit; however, systematic reviews of interventions are not designed to provide this contextual information on smokers' lives.

- A review of recent systematic reviews on interventions to reduce smoking in pregnancy showed few addressed issues of context in any detail.

- Systematic reviews of qualitative studies can provide the contextual understanding missing in reviews of interventions.

- This systematic review of qualitative research included 25 studies reporting on the experiences of over 630 women, the majority of whom began their pregnancy as smokers.

- It found that smoking was deeply imbedded in the lives and identities of women prior to them becoming pregnant; it was a habit unlikely to have been fundamentally questioned were it not for the fact of becoming pregnant.

- Becoming pregnant and therefore being a *pregnant* smoker triggered this reassessment; it prompted guilt and anxiety, and exposed women to social disapproval.

- Women tried to quit for the sake of the baby. Quitting was therefore often perceived as a temporary measure, undertaken for the duration of pregnancy.

- Trying to quit, and remaining so, was often described as very hard; cutting down was the most commonly reported method.

- Continuing to smoke, either at pre-pregnancy or reduced levels was often accompanied by feelings of guilt. However, it was also seen to be a realistic and sustainable alternative to quitting and therefore a positive change in its own right.

- The key dimensions of women's circumstances and experiences identified in the review have implications for the design and delivery of interventions to support quitting in pregnancy

Background

Smoking in pregnancy is a socially-patterned risk. Women in disadvantaged circumstances are more likely to smoke prior to pregnancy than women from more advantaged backgrounds; they are also less likely to quit in pregnancy and, among those who quit, more likely to resume smoking after birth.

Tackling inequalities in smoking is central to England's public health strategy, *Healthy Lives, Healthy People,* and to the associated *Tobacco Control Plan*. Both strategies emphasise the importance of understanding people's everyday circumstances as a first step in developing and delivering interventions to promote healthy behaviours. However, systematic reviews of interventions are not designed to provide contextual understanding. Systematic reviews of qualitative research are therefore beginning to fill this gap in the evidence base.

This summary report is based on a systematic review of qualitative research which explored the evidence on how women's circumstances and experiences influence their smoking behaviour in pregnancy, including their attempts to quit. In addition, we examined whether the contextual factors identified as influencing smoking behaviour were considered in systematic reviews of interventions to reduce smoking in pregnancy.

Methods

We undertook a systematic review of qualitative studies exploring women's experiences of smoking in pregnancy published since the 1970s. The studies were all conducted in high-income countries which, like the UK, have marked social gradients in cigarette smoking among women and men. In line with standard practice for the conduct of systematic reviews, we searched electronic databases to identify both published and 'grey' literature. References to further studies identified through this initial search were followed up and we contacted experts in the field. All studies that reported their findings in English were included. For each study, relevant information was extracted and the study quality assessed.

For the synthesis of the qualitative studies, we used meta-ethnography, a method that systematically maps, compares and condenses findings from different studies. We coded the findings of each study and then progressively combined codes to provide a rich picture of how the circumstances of women's lives influence their smoking behaviour in pregnancy.

The supplementary component of the study was an overview of systematic reviews of interventions of smoking cessation in relation to pregnancy. We searched for systematic reviews of smoking published between 2005 and 2011. For each review, any discussion of contextual factors was recorded.

Key Findings

We located 25 relevant studies reported in 28 papers. The majority of the studies had been published since 2000 (n=17) and had been conducted in the UK (n=9) or the US (n=8). The studies reported on the experiences of over 630 pregnant women. The majority of study participants were women who had begun their pregnancy as smokers and who had either quit or continued to smoke. In line with the broader social patterning of smoking in pregnancy, participants were disproportionately drawn from disadvantaged groups. Educational attainment was the most commonly used indicator of socioeconomic background.

The output from a meta-ethnography is in the form of 'lines of argument', which represent the patterns running though women's experience of smoking that can be discerned when evidence from multiple studies is combined and compared. The synthesis identified four lines of argument:

Being a smoker

The focus on being a smoker related to the centrality of smoking in women's past and current lives and the perceived benefits of smoking. Smoking was deeply woven into women's biographies; a habit forged from the circumstances in which they grew up and the

paths their lives have taken since. Smoking was seen as an habituated response to the stressors of life. It provided a 'constant support' and a sense of stability within a chaotic world and was embedded in women's social activities and networks.

Women acknowledged the role that nicotine addiction played in their continued smoking and felt controlled by it. But they also valued the pleasure they derived from smoking: the transitory but tangible escape from a difficult life. Smoking was a habit that was unlikely to be fundamentally questioned if it was not for the fact of becoming pregnant.

Being a pregnant smoker

Becoming pregnant and therefore becoming a pregnant smoker marked a critical juncture in women's smoking careers. It prompted a re-assessment of a habit that women experienced as engrained in, and supporting them through, their lives. Being a pregnant smoker triggered feelings of guilt and anxiety about the risks to the unborn child and exposed women to social disapproval: concealing their pregnancy and/or their smoking was a common reaction.

There was a general awareness among pregnant women of the risks of smoking for their unborn child: the most commonly mentioned being low birth weight. There was however, a common perception that scientific evidence was out of line with women's personal experience; they and their friends had smoked and had had heavy babies. In addition, women described a lack of consistency between the scientific evidence and the low priority they considered was given to smoking cessation by some healthcare professionals.

Partners were found to play a central role in influencing women's smoking behaviour in pregnancy, both through their smoking behaviour and through the wider dynamics of the couple's relationship.

What also persisted and sometimes worsened in pregnancy were the wider circumstances that sustained women's smoking habits: housing problems and relationship difficulties for example. Pregnancy often brought additional challenges, including the loss of structured routines and social networks that resulted from giving up paid work.

Quitting and trying to quit smoking

Women talked openly and in detail about their attempts to quit smoking once pregnant. The primary motivation for quitting was wanting to protect their unborn child from harm.

Most stated that quitting in pregnancy was very hard. Cutting down to quit was the most commonly-described approach amongst the smokers who made a quit attempt.

Encouragement and support both from informal and formal sources, (cessation services, GPs, maternity staff), was seen to make quitting more likely, with engaged and on-going support from health care professionals being highly valued. Remaining an ex-smoker was described as a daily struggle.

For many women, giving up smoking was a temporary measure, undertaken only for pregnancy and for the sake of the baby.

Continuing to smoke

Women were aware that their continued smoking was widely regarded as harmful to their unborn child and it was often accompanied by feelings of guilt and low self-worth.

The contextual factors that women saw as underlying their smoking habits pre-pregnancy – persisting disadvantage, domestic relationships, stress, tobacco dependence – were the reasons women gave for continuing to smoke in pregnancy. In these circumstances, cutting down was viewed as possible and sustainable in ways that quitting was not. It was, therefore, often described as a positive change in its own right.

Not all women viewed their smoking as hazardous enough to warrant quitting. Personal experiences lent support to this

view: for example, women spoke of knowing many women who smoked in pregnancy – but none whose baby was low birth weight or who had died in infancy. The perceived advantages of an easy labour as a result of having a lighter baby were cited as a reason for continued smoking. Concerns about putting on weight themselves were less prominent. In addition, women living in environments where illegal drug use was commonplace regarded cigarette smoking as a less hazardous addiction.

Overview of systematic reviews

Eight systematic reviews met the inclusion criteria. Despite our focus on recently-conducted systematic reviews, few addressed issues of context in any detail. Only three of the eight reviews referred to the social gradients in smoking in pregnancy, to the circumstances and experiences of women who smoke in pregnancy or to potential social differentials in the effects of interventions.

Conclusions and Implications for research

The systematic review of qualitative studies provided insight into how women's circumstances and experiences influence their smoking behaviour in pregnancy, including their attempts to quit. The continuity in attitudes and experiences across place and time was a striking finding of the review.

Drawing on the findings summarised above, we highlight four dimensions of women's circumstances and experiences with implications for the design and delivery of interventions to support quitting in pregnancy.

These relate to:

The role of partners - A pregnant smoker's partner can be a facilitator of or a barrier to quitting. The wider context of the couple's relationship is critical. Gauging the dynamics of the couple's relationship is therefore essential before partners are invited to join with health professionals in helping women to quit smoking in pregnancy.

The motivation to quit for pregnancy rather than quit for good - Women's primary motivation for quitting was to protect their child *in utero* from harm. It meant that giving up smoking was widely perceived to be a behavioural change undertaken only for pregnancy. Quitting was often seen by women as a temporary change in their smoking habits; post-partum resumption was expected and intended.

The prominence of cutting down both as a method of quitting and as an alternative to quitting – Gradual quitting was seen by many women as possible and sustainable in a way that abrupt quitting was not. For those who continued to smoke, cutting down was seen as a major achievement and a positive change in its own right.

Perceptions of risk - The tension between scientific and everyday concepts of risk appears to underlie both women's distrust of scientific evidence and their reliance on knowledge grounded in personal experience. Health care professionals appear to be caught at the intersection of these two different approaches to understanding and assessing risk.

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