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Identifying with a process of change: A qualitative assessment of the components included in a smoking cessation intervention at antenatal clinics in South Africa

Zaino Petersen, PhD[a,*], Maria Nilsson, PhD[b], Krisela Steyn, MSc, NED, MD[c], Maria Emmelin, PhD[d]

[a] Alcohol and Drug Abuse Research Unit (ADARU), Medical Research Council, Cape Town, South Africa
[b] Epidemiology and Global Health, Department of Public Health and Clinical Medicine, Umea University, Umea, Sweden
[c] Chronic Diseases Initiative in Africa, Department of Medicine, University of Cape Town, South Africa
[d] Social Medicine and Global Health, Department of Clinical Sciences, Lund University, Lund, Sweden

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ABSTRACT

Introduction: previous research has suggested that pregnant women prefer a person-centred approach for smoking cessation interventions. However few studies have illustrated the mechanism through which such an approach has an influence on quitting or reduction rates among pregnant women in resource poor settings.
Purpose: to explore the role of different components included in a smoking cessation intervention delivered to disadvantaged pregnant women with high smoking rates attending public health antenatal clinics in South Africa.
Methods: a qualitative design consisting of focus-group discussion with women exposed to the intervention was used. Women were purposively selected from four antenatal clinics and one tertiary hospital to represent different experiences of the intervention. Focus group discussions with four groups of smokers and four groups of quitters were conducted and a total of 41 women were interviewed. Data were analysed using content analysis.
Main findings: the main theme describing the intervention effect that emerged from the interviews was, 'Making identification with change possible'. The categories 'An impulse for change', 'An achievable recipe', 'A physical reminder' and 'A compassionate companion' further described how each intervention component was perceived by women and how it contributed to behaviour change.
Conclusions: behaviour change interventions that are directly informed by the target population with regards to its design, content and delivery offer great opportunities for positive behaviour change. Women positively evaluated all the components employed in this intervention but rated the social support they received from peer-counsellors as the overriding aspect of the intervention.

Introduction

Tobacco smoking during pregnancy is one of the few preventable factors associated with complications in pregnancy and birth (Lumley et al., 2009). Some of the outcomes caused by smoking during pregnancy include placental abruption, miscarriage and preterm delivery (USDHHS, 2004). Babies born of mothers who smoked during pregnancy are often smaller at birth (less than 2,500 GM) and are at increased risk of stillbirth, neonatal death and Sudden Infant Death Syndrome (Salihu and Wilson, 2007). Tobacco use has also been cited as one of the principle causes of health inequality between the rich and the poor (Wanless, 2004).

Smoking cessation interventions during pregnancy can have significant impact on smoking rates and ultimately birth outcomes. Two Cochrane reviews have demonstrated a decrease in the incidence of low birth weight (Lumley et al., 2004, 2009) while others have shown reductions of up to 15% in preterm birth and low birth weight, due to interventions (Hammoud et al., 2005). However, many countries with high female smoking rates do not have policies for smoking cessation interventions for pregnant women. The US, UK and Australia have developed guidelines for promoting smoking cessation in pregnancy (Aveyard and West, 2007). The effectiveness of the 5 A's guideline (Ask, Advise, Assess, Assist, and Arrange) has been tested; however it is still not used widely (De Vries et al., 2006). One reason may be the challenges for engaging midwives in the

* Corresponding author.
E-mail addresses: zaino.petersen@mrc.ac.za (Z. Petersen), maria.nilsson@epiph.umu.se (M. Nilsson), krisela.steyn@gmail.com (K. Steyn), Maria.Emmelin@med.lu.se (M. Emmelin).

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implementation. They may not consider smoking cessation part of the work task, have too little time to be involved or feel pessimistic about their own capabilities (Hajek et al., 2001; Lawrence et al., 2003; De Vries et al., 2006).

During pregnancy many women experience a pressure not to smoke and a lower social acceptance for smoking (Dunn et al., 2004). Their environment and their social context and networks; partners, family and friends, are all influential. The knowledge and smoking habits of people close to them can have a great impact on the smoking pregnant women's ability to quit, by offering support or constituting a hindrance (Bottorff et al., 2005; Koshy et al., 2010).

In South Africa, disadvantaged women of mixed ancestral descent have very high smoking rates, and such rates have become evident in the increasing risk of preterm labour and placental abruption experienced by these women (Odendaal et al., 2001). A public health dilemma thus exists and policies are needed to ensure that the smoking habits of vulnerable pregnant women are addressed. Prior to this research no smoking cessation programmes existed in the South African public health-care sector and the feasibility of this intervention needed to be explored for integration into routine antenatal care.

The aim of this paper was to explore the role of the different components included in a smoking cessation intervention among disadvantage pregnant women with high smoking rates attending public health antenatal clinics in South Africa. This paper provides information on an intervention informed by pregnant women themselves and looks at the contribution of each component (the newly trained midwife, the peer counsellor, the newspaper and the quit guide) to smoking cessation during pregnancy.

The intervention

The smoking cessation in pregnancy project was introduced into four public antenatal clinics in Cape Town. The intervention (Table 1), which was incorporated into routine antenatal care included training midwives to use the 5 A's guideline adapted for pregnancy by the American College of Obstetricians and Gynecologists (ACOG, 2001). All women were seen by a trained midwife, with midwives delivering their duties as per usual, the only difference being that they now used the 5 A's guidelines with all women. Lay peer counsellors who resided in the community and who had experience of quitting during pregnancy were also trained to deliver this method, along with an introduction of the key principles of motivational interviewing. Because women felt more comfortable talking to a peer counsellor about their smoking habits and other concerns they may have (social problems and alcohol and drug use) women were referred by the midwife to the peer counsellor. Peer counsellors also had more time to spend with pregnant women. Educational material in the form of newspapers were specifically designed and distributed to all pregnant women: one aimed at pregnant women and the other aimed at their family/partners. The idea for the newspaper came from a popular tabloid targeted at people in this community. The types of stories published in this paper include stories about people in the community, their achievements, crime, with drug and alcohol related stories featuring regularly. The newspaper used in this intervention was designed using the same style as the tabloid, with the end product looking exactly like the original tabloid. A seven-day quit guide was provided to women in the preparation stage. For some this was already at the first antenatal visit, while others received it later in their pregnancies when they were ready to quit. The intervention was delivered from February to December 2007, with peer counsellors being available at the clinic daily.

In other papers we described the intervention more thoroughly and presented the results from the quantitative outcome evaluation of the intervention (Everett-Murphy et al., 2010) as well as qualitatively analysed the overall influence of the intervention as experienced by the women themselves (Petersen et al., 2010). The results of the first qualitative study showed that the intervention changed the way women perceived, thought of and felt about smoking. It had made them go through a transition from hopelessness to confidence (Petersen et al., 2010). However, the question of the mechanisms involved in this transition remained unanswered. In this paper we give a more detailed analysis of how the midwives use of the 5 A's best practice guideline, the culturally specific educational material and the support provided by the peer counsellors was perceived by the participating women themselves.

Methods

Study setting

The study was performed in Cape Town in four public sector antenatal clinics providing care to women with high smoking rates, and the tertiary hospital to which women experiencing complications were referred. All these antenatal clinics participated in the 'Smoking cessation in pregnancy project'.

Study design

To reach an in-depth understanding of the women's perceptions of the intervention components a qualitative research design was chosen using focus group discussions for data collection (Dahlgren et al., 2004). The method allowed women to reflect in groups about what the different intervention components had meant and how this may have influenced their smoking behaviour.

Sampling of informants

Women were purposively selected with the help of the peer counsellor as they had more insight than midwives into women's background and women's experience of the intervention and all its components. This is because peer counsellors had more time to spend with women discussing the intervention and how it changed their behaviour. Participants included smokers with varying degrees of readiness to change their behaviour, and quitters who were still in the process of quitting and those who had given up smoking completely (during the current pregnancy). Because methamphetamine and marijuana use, illegal substances in South Africa, was so prevalent in this community, the sample also included women who used these drugs. Methamphetamine became increasingly prevalent in Cape Town in the early 2000s, and since 2009 it has been the primary substance of abuse for people of mixed ancestral descent residing in Cape Town (Plüddeman et al., 2010). With the focus of this study being on smoking and smoking cessation, no concerted effort was made during purposive sampling to include women who use drugs; however it became evident that some of the women approached to participate in the study were also drug users. The peer counsellors explained to women the purpose and nature of the study, after which the interviewer formally invited women to participate in the discussions. Attempts were made to include women who were already in their third trimester, with the result that some women had already given birth when they participated in the focus group discussion. This was seen as an advantage since