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## *Wula (Voices) of Aboriginal women on barriers to accepting smoking cessation support during pregnancy: findings from a qualitative study.*

**Keywords:** smoking; pregnancy; women; Aboriginal Health; Qualitative

**Aim:** To gather Aboriginal women's stories of smoking and becoming pregnant to identify the barriers in accepting smoking cessation support during pregnancy.

**Methods:** Qualitative data were collected through use of yarning methodology between August 2015 and January 2016 by an Aboriginal Researcher with experience in social and community services. A short on-line survey was used to collect quantitative data. Interviews only recorded the therapeutic yarning process, which ranged from 9 to 45 minutes' duration, averaging 30 minutes. Audio-recorded interviews were transcribed and independently coded. A general inductive analysis was used to determine emergent themes.

**Results:** Twenty Aboriginal women between 17-38 years of age, who were pregnant or recently given birth, living in the Hunter New England (HNE) area took part. Eleven women were still smoking; nine had quit. Most were highly aware of the implications of smoking for their babies. Major themes identified for accepting support were: ambivalence towards a need for support, health professional advice, reduction in smoking, and attitudes to Nicotine Replacement Therapy (NRT). Women reported being advised to cut down, rather than to quit; reducing consumption may be a barrier to accepting NRT. Women recommended enhanced clinical support and Aboriginal community engagement in cessation care.

**Discussion/Conclusions:** Aboriginal women in the HNE area reported quitting or reducing their cigarette intake during pregnancy. Health Professionals working with Aboriginal women during pregnancy should give consistent messages to quit smoking completely, and offer increased, ongoing and extensive smoking cessation support to Aboriginal mothers. Clinical practices could partner with Aboriginal communities to support the delivery of smoking cessation services.

- **Problem**

Aboriginal infant mortality rates are not on track under the Closing the Gap campaign. The high prevalence of smoking during pregnancy increases the risk of low birth weight among Aboriginal babies.

- **What is already known**

Aboriginal women experience multiple barriers to quitting smoking during pregnancy. It is not known what the experiences are of Aboriginal women receiving cessation advice and support during pregnancy.

**What this paper adds**

Aboriginal women are actively reducing their cigarette intake during pregnancy and following the advice of their clinicians to do this. Reducing consumption may be a barrier to accepting NRT and cessation support during pregnancy. Aboriginal mothers are not routinely offered cessation supports such as counselling or community based support which they felt could be appropriate.

## **Introduction**

The Australian Government made a commitment to Closing the Gap in life expectancy between Indigenous and non-Indigenous Australians by 2030. Halving the gap in mortality rates of Indigenous children under five by 2018 includes two key targets: reducing the number of babies born with low birth weight and decreasing tobacco smoking during pregnancy, which are not on track (1).

Aboriginal mothers are over 3 times more likely to smoke during the first 20 weeks of pregnancy than non-Indigenous mothers (45% vs 13% age standardized)(2). Aboriginal mothers are also more likely to be teenagers (17% vs 2%), live in remote areas (23% vs 1.7%), experience socio-economic disadvantage (2.5 times), receive less antenatal care (one less antenatal visit), and are only half as likely to quit smoking during pregnancy (12% vs 24%), compared to non-Aboriginal mothers (3). Maternal smoking is the most important modifiable risk factor for adverse health condition for mother and baby (4). Twelve per cent of babies born to Aboriginal

mothers are of low birth weight and are 1.5 times more likely to be small for gestational age (1, 3). Low birth weight raises the risk of chronic diseases including: cardiovascular disease, chronic kidney disease and type 2 diabetes which significantly impacts the life expectancy of our Aboriginal people (4-8). Smoking during pregnancy continues to be a contributing factor to low birth weight of babies born to Indigenous mothers. Smoking in pregnancy rates have declined by 11.7% in the general population, but only by 1.4% for Aboriginal women, age standardized (2). Addressing smoking during pregnancy is an urgent priority to influence long term outcomes for Aboriginal people.

Current guidelines for health professionals recommend smoking cessation treatment for pregnant women to include: encouragement to stop smoking completely, offer intense support and proactive telephone counselling, with supplementary informational/educational resources (9). If this is not enough to initiate quitting, NRT should be offered after clear explanation of the risks involved, and with quitting smoking being a long-term goal (9).

Addressing smoking in pregnancy has been identified as a key priority area for long term health outcomes of Aboriginal people, however there is limited evidence that smoking cessation interventions are effective (10). There has been only one smoking cessation trial with Australian Aboriginal women, reporting a non-significant change in quit rates  $p=0.992$  (5% quit rate in control group compared to 11% in intervention group) (11). In view of this, understanding more about Aboriginal women's experiences of smoking and becoming pregnant is crucial for the development and implementation of effective interventions. Moreover, little is known about pregnant women's specific experiences with therapy options. A survey with pregnant Aboriginal who smoke revealed positive attitudes to advice and support from doctors (61%) and midwives (62%) and free nicotine replacement therapy (59%) (12).

Studies are needed that refine interventions to address the specific needs of vulnerable subpopulations, without compounding existing problems (13). No studies have engaged with Aboriginal women to qualitatively examine the perceived barriers to accepting smoking cessation support during pregnancy. to empower and support

Aboriginal women to successfully quit smoking during pregnancy and reduce the incidence of low birth weight babies.

‘Wula’ is a Wiradjuri word for voices. This study aims to privilege the voices of Aboriginal women, smokers and ex-smokers, from Hunter New England (HNE) area, collecting their experiences of smoking during pregnancy and of receiving smoking cessation care, so we may collaborate and find effective solutions to enhance the health and wellbeing of Aboriginal mothers and babies.

## **Methods**

### **Participants, Ethics and Methods**

Demographic and quantitative data were collected on participants before interviewing using a Qualtrics online survey administered by the interviewer on a computer tablet. Questions included: education attainment, pregnancy status, how many children in the household, smoking status, house rules for smoking, smoking behavior and quitting experiences.

Twenty Aboriginal women, over 16 years of age, who were pregnant or recently given birth, living in the HNE area, NSW, Australia took part (See table 1). Qualitative data were collected through use of yarning methodology (14) between August 2015 and January 2016 by a female Aboriginal Researcher (MB) with experience and qualifications in social and community services. The yarning methodology followed the process of: social yarning, research topic yarning then therapeutic yarning however only the therapeutic yarning process was audio recorded and analysed. Social yarning was used to establish connections between the Aboriginal researcher and the Aboriginal woman and build trust. A research topic yarn offered the women an opportunity to understand why they were being asked to engage in the research, what is currently published on the topic, and how their experiences might be important to add to the conversation on maternal smoking. The therapeutic yarning positioned the researcher as the listener as women shared their stories of smoking and becoming pregnant (14). Therapeutic yarning interviews ranged from 9 minutes to 45 minutes’ duration (an average of 30 minutes) and were conducted at women’s homes, local community centres or Aboriginal Medical

Services. Often participants' children were present during the interview; no partners or other family were present.

Relevant recruitment strategies were employed in three settings:

1) Four women participated from the Quit for New Life (QFNL) program. The QFNL program currently offers smoking cessation support from midwives and Aboriginal Health Workers through the Aboriginal Maternal and Infant Health Services (AMIHS). Telephone interviewers evaluating the QFNL program sought the client's interest in this study, and permission was obtained to forward their contact details using the transfer of password protected files from HNE Health to University of Newcastle. Two AMIHS services; Naae-Wanni and Birra Li also raised awareness of the study with the community.

2) Aboriginal Community Controlled Health Services: Biripi Aboriginal Corporation Medical Centre and Tobwabba Aboriginal Medical Service Inc supported recruitment of five women, by asking eligible mothers if they would like to participate in the study, and if they agreed, forwarded contact details to the research team.

3) Five women were Aboriginal community members: using known networks with Aboriginal elders, community and programs, MB visited Aboriginal parenting playgroups, and six women participated from the University of Newcastle's Gomeroi Gaaynggal project, and partnering projects. MB sought face to face engagement with eligible Aboriginal women.

Women who met the eligibility criteria (>16 years, Aboriginal and/or Torres Strait Islander, pregnant or recently given birth, history of smoking) were given an information sheet and had the study explained to them by MB, who gained informed consent from each woman. All eligible women agreed to participate. Women were offered a \$20 gift voucher to reimburse their time participating in the study. Transcripts were emailed to women for review and feedback. At the completion of the study a community report was developed and distributed to each participant via email, and recruitment sites to disseminate knowledge produced by the study.

**Ethics** The study was approved by:

AH&MRC Ethics Committee (#1051/14); Hunter New England Health Ethics Committee (#14/11/19/4.02); University of Newcastle Ethics Committee (# H-2015-0160)

**Analysis** Therapeutic yarning interviews were audio taped and transcribed by MB or an external transcribing agency. Transcribed data were coded using Nvivo 11 software. 20% of data were independently open-coded by MB and GG (a General Practitioner working in Aboriginal health research). A coding book was developed for remaining data to be coded by MB: GG quality checked a sub sample. MB also made field notes that were used for reflexivity, and ongoing dialogue with GG throughout the data collection process. MB and GG used an inductive thematic analysis to analyse and report the experiences, meanings and the reality of participants (15).

## **Results**

Twenty Aboriginal women participated in our study with age range of 17 to 38 years (mean of 27 years). All women were Aboriginal, six were pregnant, 14 having recently given birth, 17 having more than one child, 11 current smokers, and 10 having made at least one quit attempt. Table 1 further describes the pregnancy, birthing, smoking characteristics, and past uptake of treatment of the sample, divided into those that quit and were still smoking.

From the inductive analysis, four interrelated barriers emerged for accepting support: ambivalence to a need for support, health professional advice, reduction in smoking, and attitudes to Nicotine Replacement Therapy (NRT). Aboriginal women also made suggestions for increased health professional support and community based initiatives to support them to quit smoking during pregnancy.

### **Barriers to accepting cessation support**

#### Ambivalence to a need for support

Eleven women interviewed were current smokers and smoked during pregnancy, yet only three of the women interviewed accepted cessation support during pregnancy: this support was accepted through the Quit For New Life program. Women who did not accept cessation support during their pregnancy were supported by a range of antenatal care services including: Aboriginal Maternal and Infant Health Service (NSW Health), Aboriginal Medical Services, Gomeroi Gaaynggal and local hospital care. These women expressed an ambivalence to a need for quit smoking supports such as counselling, NRT or quitline referrals.

*“I don’t even know why I didn’t use anything, it’s not that I didn’t believe in the Quitline, or the patches, or the gum, I just didn’t think to use any of that, I thought I’d do it on my own two feet.” (W.10)*

Many Aboriginal women asserted that quitting smoking was something to be undertaken on your own, taking full ownership of the process, and not thinking that support was needed to quit smoking.

*“No, I never really thought about it, I just thought I’d be able to stay off it myself”. (W.7)*

This independent approach to quitting smoking extended beyond pregnancy and into the wider Aboriginal community when quitting smoking was done *“cold turkey when we do”*. (W.12) The term “cold turkey” was expressed continually by the women in reference to quitting smoking approaches within the Aboriginal community which can be indicative as influencing their own possible ambivalence to needing or accepting support to quit smoking during pregnancy.

### Health Professional Advice

Health Professionals (HP) advice was taken seriously by all women in our study, women reflected on this HP advice when articulating what their smoking behaviours were during pregnancy. There was an evident inconsistency of advice offered to women during pregnancy. Some women had not been offered any advice to quit, only being asked if they were smokers and their rate of cigarette consumption. While other women were advised specifically to reduce their smoking intake but not to quit smoking when pregnant.



*“They often talked to me about my smoking and they did say if you can slow down as much as you can, but try not to go cold turkey is one of the information I given.” (W.17)*

One woman even stated her doctor offered a target number of cigarettes per day to reduce to.

*“They asked was I still smoking, how many per day, we need to decrease it, you know, get it down to this amount.” (W.6)*

Through the women’s stories it became apparent that conversations about smoking in pregnancy were not routinely conducted by HPs, and the conversations that were occurring primarily asked and assessed smoking consumption rather than educating women on the harms of smoking during pregnancy, or offering cessation support. Seven of the women recounted being offered NRT, but explained they received minimal instructions to guide their use of NRT to support quitting.

*“We had a conversation, I think it was more of what products I used in the past...I think it was a very minimal plan that had been laid out. I think there was two or three questions and that was it.” (W. 16)*

Offering of NRT support was also often fragmented or a ‘one time offering’, and frequently not supported with a referral to counselling based supports including the Quitline.

*“No they’ve only offered me the gum once” (W. 1)*

Due to the inconsistency of HPs advice and often fragmented support, women perceived this as the only help available to support quitting smoking during pregnancy. Some women felt defeated by failed quit attempts from using NRT, and considered that increased support from their HPs was needed.

*They say “do you want to quit smoking?” and you tell them you do but it’s like “we’ll encourage you to but we’re not going to properly support you to do it”. (W16)*

### Reduction in smoking

The HP’s advice directly affected the smoking practices of the women in our study. There was only one woman interviewed who continued to smoke the same amount

of 20 cigarettes a day during pregnancy, as she had done prior. The remaining ten women, who did smoke during pregnancy, shared their stories of reducing smoking as a purposeful act during pregnancy as advised by the HP.

*“I’d only have probably three smokes a day if I was lucky”. (W.1)*

Women were proud of their success in reducing their cigarette intake and wanted to provide the best start to their baby’s life.

*“I was doing 10-15 cigarettes down to 1-2 cigarettes a day I think that is a big, a big reduce.” (W18)*

Women were proud to have been following the advice of their HPs, and succeed in reducing their smoking intake. No woman in our study had their HP tell them to quit smoking during pregnancy, only to reduce their intake. While one woman explained that her HP suggested weaning herself off smoking, there was no planned approach to enable a quit attempt.

#### Attitudes towards NRT

The reduction of cigarettes directly impacted on the uptake of NRT, women believing that if their cigarette intake was only 1-2 cigarettes per day, they did not need a medicine to help them.

*“I told them I wasn’t try[ing] anymore (\*to use NRT) and that I was just, you know because I was just doing 1-2 cigarettes a day I wasn’t that much of a heavy smoker too.” (W.18)*

Some women presented unfavorable attitudes towards NRT and held concerns about trying something new when pregnant, particularly when during pregnancy they are aware that there are foods and medications to avoid.

*“They gave me patches and chew you try but like I didn’t feel comfortable taking them while I was pregnant.” (W.19)*

When discussing NRT HPs did not incorporate education on how NRT works, methods of use and combined therapy options (i.e. oral NRT and patch). When sharing their stories of NRT women spoke of trying one or two forms only. Women

commented on the taste or texture of the oral forms of NRT medication, rather than reflecting on whether NRT helped curb cravings or reduce withdrawal symptoms.

*“I don’t like tablets or the lollies they’re disgusting, the sprays and all that it’s just too feral.” (W.15)*

Attitudes towards NRT circled back to the ambivalence to a need for support as women reflected on family and community smoking cessation stories, which resulted in people quitting ‘cold turkey’ and not actively engaging in the use of NRT.

*“Everyone I know that has quit smoking has just gone cold turkey, like they haven’t used anything.” (W.2)*

### **Suggested Strategies**

*“There’s more support needed for this one thing than there is anything else” (W.16)*

Aboriginal women called for more support to help them quit smoking and made the following two core suggestions for support: support from HPs and community support.

#### Support from Health Professionals

Women repeatedly mentioned the need for increased support from HPs.

*“There just needs to be more one on one and more focus for health care professionals to be trained in dealing with high stress levels of a smoker that’s quitting.” (W.16)*

One woman who had received and accepted smoking cessation support during pregnancy, including NRT and Quitline support, stated there remains a need for *“...more hands-on support from professionals” (W.16)*, more frequently and providing more counseling and education on smoking affects during pregnancy.

Several women suggested HP could coordinate group support to be offered to Aboriginal women to build a support network during the quitting process, sharing stories and strategies that could guide women through cravings and withdrawals during pregnancy in real time.

*“I felt like having a cigarette this morning when I got up, but instead of doing that I walked the kids to school rather than driving them to school” and you think “oh that’s something I haven’t thought about trying maybe I’ll do that”... I think hearing other people’s stories and how they cope with it is helpful.” (W.17)*

#### Community support for smoking cessation

Aboriginal women stated they would be more likely to be honest and engage with support from their Aboriginal community.

*“I have nothing but the utmost respect for my aunt whereas the doctor is just another Joe Blow.” (W.15)*

Aboriginal women discussed elders and aunties offering smoking cessation supports to them in a counseling capacity, as they would understand the psychosocial influences the women are experiencing.

*“Most people listen to their elders. Like, I can go to the doctors and listen to the midwives and the doctors telling me not to do stuff, it’s like, “I don’t know you. Who are you? You’re just a doctor here that works here. You don’t know my life, you don’t know where I live, how I get treated or what’s around me.” Where the elders can actually be like, “I know what you’re going through, don’t worry, stop stressing.” Like they know more about that family and just be able to support more.” (W.3)*

#### **Discussion**

This study engaged 20 Aboriginal women in the HNE area in research, privileging their voices through the use of ‘yarning’ methodology led by an Aboriginal researcher. Participants included pregnant and recently pregnant women, both smokers and ex-smokers. Four themes emerged about barriers to accepting cessation support, namely ambivalence to a need for support, health professional advice, reduction in smoking, and attitudes to Nicotine Replacement Therapy (NRT). Previous qualitative and quantitative studies exploring Aboriginal maternal smoking have addressed historical, social and community experience of tobacco use (16-21). However, this is the first study to explore the experiences of Aboriginal women in accepting support and NRT during pregnancy.

In our study, we found that Aboriginal women want to take ownership of their quitting process during pregnancy, which can be a barrier to accepting cessation support during pregnancy. The role of all HPs overseeing the care of Aboriginal pregnant women is of prime importance, and has the potential to reduce the prevalence of smoking during pregnancy.

HPs' health messages, education and advice offered to women in our study was inconsistent, and an offering of cessation support often fragmented. Aboriginal women in the HNE community are reporting actively reducing cigarette intake during pregnancy and following the advice received from their HPs to do so.

Aboriginal women are accepting and requesting increased support from their HPs during pregnancy. Women in our study are calling for clear and consistent health messages with an increase in cessation support from HPs and their Aboriginal community to build their confidence and to empower them to quit smoking during pregnancy. Increased education on the harms of smoking during pregnancy and the methods and supports available for quitting should be offered to all Aboriginal women during pregnancy. The offering of smoking cessation support, both psychosocial and pharmacological treatments, needs to be a continual effort by HPs, with planned approaches and scheduled ongoing follow up.

Quantitative data revealed that over half of the sample were smoking, but all smoked outside the home. Most women who smoked, smoked less than 10 cigarettes a day, and less than half had used NRT. More women who used NRT had tried the patches than accessing oral forms of NRT (consistent with oral forms being less easily accessible as not currently subsidized in Australia)(22).

Our study shows evidence that HPs are confident in advising a reduction in cigarette consumption, but Aboriginal women are not being advised to completely quit smoking during pregnancy. As previously reported, some clinicians consider reduction as an effective method of smoking cessation (23). While oral NRT is now offered to Aboriginal mothers during pregnancy across antenatal services in some states, the safety of NRT during pregnancy may be a continued concern of HPs (23). Psychosocial interventions to support women quit smoking during pregnancy are

effective and should also be integrated into antenatal care to address the role of stress and influence successful quit attempts (13, 24).

In another study in the HNE area, Aboriginal Maternal and Infant Health Services staff reported a high level of assessment of smoking status (92.2%) however follow-up support (28.6%) and NRT provided (42.2%) was low. Few staff (19.7%) were confident in motivating women to quit smoking. More can be done to improve service delivery to Aboriginal women during pregnancy (25).

Individual HPs influence engagement and uptake of cessation support. HP must offer clear, consistent and repeated messages with multiple approaches. Supportive and encouraging cessation services should also provide education about risks of smoking, smoking cessation options and benefits of quitting (26, 27). Supportive and encouraging services should build on Aboriginal values of resilience, empowerment and trust (16, 28). Increased support is needed for Aboriginal women to quit smoking during pregnancy. Our study also reported the importance of HP as well as a need to integrate social and community based support (28). Another study on the same cohort of Aboriginal women revealed multiple potential entry points to offer smoking cessation support (29). Strategies most favoured by Aboriginal women and their healthcare providers, for smoking cessation support during pregnancy, include supporting the whole family, rewards and advice from HPs (12).

Aboriginal smokers in general are more likely to make a quit attempt, but less likely to succeed in quitting than non-Aboriginal Australians (39% vs 30%) (2). Gaps in cessation supports offered to Aboriginal people must be explored, and innovative service delivery options explored to enhance success in quitting.

### **Implications for Policy and Practice**

Research in the general population has identified 10 factors associated with uptake of smoking cessation interventions including: *smoking is broached by a health professional, the content of advice and information provided, and follow-up discussion* (30). These factors are not evident as being successfully implemented in the women's stories of smoking cessation supports offered to them by their HPs during pregnancy. The implementation of high quality smoking cessation

interventions to Aboriginal people is crucial to Closing the Gap in health disparities. Consistency of health messages, with support and follow up should be offered to all Aboriginal women. Furthermore, assistance should be given to quit smoking completely, as opposed to only reducing consumption during pregnancy, as research has shown even low levels of cigarette consumption are associated with low birth weight in newborn babies (31). These measures are vital to addressing the prevalence of smoking in pregnancy and the long term health outcomes for Aboriginal people.

### **Strengths and Limitations:**

The strengths of this study lie in the conduction of face-to-face interviews, at a location of the woman's choosing, with an Aboriginal female researcher. The findings presented here are the experiences of Aboriginal women living in the HNE area collected through the Indigenous research methodology of 'Yarning' (14). Acknowledging the diversity of Aboriginal communities, this does not necessarily represent the views and experiences of Aboriginal women in other locations.

### **Conclusion**

Aboriginal women are continuing to smoke during pregnancy at a higher rate than non-Indigenous women, but are reducing their cigarette consumption. Maternal smoking must be addressed in order to Close the Gap in health disparities for Aboriginal Australians. Improvements can be made to the current support offered to Aboriginal mothers to quit smoking during pregnancy. Conversations led by HPs need to move beyond assessing smoking status to include advice and support to quit smoking during pregnancy and beyond. HP advice to quit should be followed up with support and referral with scheduled ongoing follow up. With the release of the 2017 Closing the Gap Report articulating that the target to halve the gap in infant mortality by 2018 is not on track, we must take increased action and develop innovative approaches and educational resources to support Aboriginal mothers to quit smoking during pregnancy. The engagement of local Aboriginal community to develop and implement interventions that are culturally responsive need to be explored, offering new approaches to service delivery for Aboriginal women (32, 33).

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The authors declare that they have no conflict of interests.

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