

Anti-tobacco Messages for Aboriginal Pregnancy

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Messages from peer-reviewed papers were compared against the content of health promotion campaigns for Aboriginal and Torres Strait Islander pregnant women from Australia. Empirical studies highlighted women sought holistic care that incorporated nicotine replacement therapy, engaged with their family and community and the potential for education about smoking cessation to empower a woman. Health promotion campaigns had a strong focus on 'engagement with family and community', 'knowledge of risks of smoking,' 'giving up vs cutting down' and 'culture in language and arts'. There were similarities and variances in the key themes in the research evidence and promotion materials. Topics highly aligned included risks from smoking and quitting related issues.

Keywords: pregnant women ; smoking cessation ; Aboriginal and Torres Strait Islander health ; social media ; health promotion

1. Introduction

"... we move towards forging a positive way forward for those coming behind us, by creating a new discourse on Aboriginal women, one filled with messages of strength and hope for younger women and for our people."

Gregory ^[1].

Inequities in health policy and service provision manifest in a variety of ways, including disproportionality in high-risk behaviors such as tobacco smoking. The high prevalence of smoking amongst Indigenous peoples globally is highlighted in the preamble to the World Health Organization's Framework Convention on Tobacco Control ^[2].

In Australia, Aboriginal and Torres Strait Islander women have higher smoking rates compared with non-Aboriginal women, observing a percentage of 44% compared with 11% ^[3]. Therefore, promoting a smoke-free pregnancy benefits Aboriginal and Torres Strait Islander women and their babies, including reducing the risk of perinatal death, preterm birth, small for gestational age, and severe neonatal morbidity ^[2]. While Aboriginal and Torres Strait Islander people are more likely to attempt to quit smoking than other Australians, they have less success ^[4]; specifically, during pregnancy, Aboriginal and Torres Strait Islander women are highly motivated to quit smoking, but they are widely unsupported to do so by health providers ^[5].

The success of government strategies that prioritize smoking cessation is dependent on adopting an evidence-based approach that is tailored to the specific contexts of pregnant Aboriginal and Torres Strait Islander women. However, there is little research how evidence regarding the best ways to support smoking cessation and inform the health messages used to promote smoking cessation among Aboriginal and Torres Strait Islander pregnant women. While Indigenous peoples comprise diverse groups with a variety of strengths and cultures, the present-day impacts of colonization are markedly similar. For Aboriginal and Torres Strait Islander populations, smoking is tightly linked to the nation's history of colonization, and subsequent government-sanctioned policies of racism, discrimination, and oppression. Settlers cultivated tobacco dependency as a 'civilizing' or 'taming' influence ^[6], and Aboriginal and Torres Strait Islander peoples often worked in brutal circumstances in exchange for tobacco. Accessibility to tobacco played a part in the migration of Aboriginal and Torres Strait Islander communities to areas of white settlement, contributing to the severance of connections with lands, languages, histories and cultures ^[6].

In spite of these severed connections, Aboriginal and Torres Strait Islander communities, culture, and women remain strong. For Aboriginal and Torres Strait Islander women, theirs is a story of 'trauma and triumph' ^[1]. In concert with individual protective factors such as inner strength, maintaining a strong sense of identity and practicing culture, this resilience is also attributable to the strong connections and relationships between Aboriginal and Torres Strait Islander women in friendship groups, family and community ^[1]. Smoking is often a part of these social interactions, and for

pregnant Aboriginal and Torres Strait Islander women in a collectivist kinship system, this can provide a sense of belonging and connection [7][8]. It follows then that social media campaigns targeting smoking cessation for pregnant Aboriginal and Torres Strait Islander women would need to draw on these key aspects of women's lives and their culture.

Improved access to internet communication technologies and exponential growth in smartphone usage locates social media as an ideal complement to traditional public health smoking cessation media campaigns. Social media (for example, Facebook, Twitter, Instagram, and WhatsApp) is potentially a powerful channel for health promotion message delivery. However, the uptake, usage and style of interaction on social media platforms vary greatly by population groups. For Aboriginal and Torres Strait Islander Australians, social media platforms have potential to 'level the playing field' somewhat, dismantling existing hierarchical power structures and returning ownership of Aboriginal and Torres Strait Islander culture and voices to Aboriginal and Torres Strait Islander communities. They can be a place to affirm Indigenous identities, establish a sense of power and control over the portrayal of online identity, share and grow traditional culture, strengthen community and family connections, and participate in health promotion programs [9].

In mainstream populations, social media smoking cessation interventions have strong feasibility and acceptability [10] and some success in the initiation and maintenance of smoking cessation [11]. However, the overall quality of smoking cessation mobile applications and their adherence to the evidence base and smoking cessation guidelines is variable [12] [13]. While there is limited research exploring the effectiveness of culturally targeting media messages for smoking cessation, early campaigns have been effective in terms of changes in knowledge, attitude and behavior for Indigenous peoples globally [14]. In a national two-wave survey of 739 Aboriginal and Torres Strait Islander respondents who smoke, those who recalled any local advertising were significantly more likely to have attempted to quit smoking (58% vs. 39%, AOR: 2.03) [15]. The tobacco smoking campaign for pregnancy, Quit for You, Quit for Two, had prompted the recall of 61% in women who had been pregnant or contemplating pregnancy, 75% of currently smoking respondents intended to take further action and 40% considered quitting [16].

A series of recent reviews have explored various aspects of the journeys of pregnant Aboriginal and Torres Strait Islander women and smoking cessation, including experiences, perspectives and values [7]; barriers and facilitators for smoking cessation [17]; the upholding of empowerment during smoking cessation interventions [18]; and knowledge, views, and barriers to cessation [19]. To date, no systematic review has specifically focused on best evidence approaches for social media messages for smoking cessation among pregnant Aboriginal and Torres Strait Islander women or pregnant Indigenous women globally.

2. Domains of Aboriginal Social and Emotional Wellbeing Model and Behavior Change Wheel Model

As expected, there was significant variance in the alignment of the domains of the Aboriginal Social and Emotional Wellbeing Model and the COM-B constructs in the research evidence and health promotion materials. While some topics raised by Aboriginal and Torres Strait Islander women within the conducted studies were well covered and highly aligned with the media messages, for example, the risks from smoking, issues related to quitting (giving up vs. cutting down) and engagement with family and community, other topics were infrequently portrayed as a topic within messages. Stress was reported as a factor related to smoking in pregnancy in 36% (4/11) peer-reviewed articles we assessed and was covered by only two health promotion campaigns (11%). The limitations of health provider practices, mentioned in 45% (5/11) of the papers, featured in 22% (4/18) campaigns. Despite 'engagement with family and community' being an important theme in the included papers, and featuring in most campaigns, few of the health promotion resources actually targeted family and community members alongside their focus on pregnant women. Culturally meaningful messages are vitally important to resonate with Aboriginal and Torres Strait Islander peoples. Culture was represented in the majority of resources via language and the arts, but less prominent in terms of 'knowing the past, dreaming of the future' (used by about 50% of campaigns) and the focus on relationships (30%) and respect for community (30%).

It is acknowledged that when developing campaigns, pragmatic choices need to be made about the focus and content of messages. Media containing too many messages may be confusing. The campaign needs to be suitable for purpose, and co-design with Aboriginal and Torres Strait Islander communities is vital to promote ownership of messages and campaigns. It may not be necessary to cover all domains of the Aboriginal Social and Emotional Wellbeing Model or all components of the COM-B Model, although a holistic approach was taken by two campaigns which covered most domains of both models (*Stronger Boorais* and *Birthing in our Community*). The Behavior Change Wheel and COM-B Model have been used as a toolkit to develop successful health promotion campaigns [20]. A behavioral diagnosis is helpful as a first stage when designing health promotional interventions. This approach has successfully been used for co-designing resources for pregnant Aboriginal and Torres Strait Islander women [21]. Appropriate intervention functions of the

Behavior Change Wheel are usually chosen depending on what one aims to address in relation to the COM-B components [20]. In our review, most of the health promotion messages used education, persuasion and modelling however lesser used intervention functions that appeared in the evidence-based review, such as incentivization and enablement, could be candidates for future messages.

When using the Behavior Change Wheel and COM-B components, it is important to note that both physical and social opportunity are essential to maximize the effect of motivation and capability. Physical opportunities to quit smoking maybe lacking if health providers are not available or not skilled, and/or access to services is deficient. Social opportunities to quit smoking may be lacking if smoking is a social norm, there are few positive role models, or family and communities are not sufficiently supportive of pregnant women to quit smoking.

The themes and topics defined by this literature review and health promotion materials analyses may serve to broaden ideas for unique and less well-covered but relevant angles. Some issues raised by women within the context of research projects may be well-documented and broader due to rigorous designs to reduce bias. There are opportunities to use more of this evidence in media messages going forwards, whilst also concurrently offering these themes as considerations to communities when engaging in participatory processes of co-design.

Few research studies describe in detail the development of campaigns and how their health promotion messages were devised or the foundations for their messages. Aboriginal and Torres Strait Islander community-based workshops may be held with audience segmentation taken into account [22]. Resnicow et al. [23] recommend that culturally sensitive health promotion messages are developed on the foundation of surface and deep structure. Surface structure involves using messages that would be relevant to the outward characteristics of a target population. Deep structure takes account of the cultural, social, historical, environmental, and psychological factors that influence the target health behavior. Both surface and deep structure are important to ensure the fit and salience of messages, respectively. Deep structure aligns with many of the domains of the Aboriginal Social and Emotional Wellbeing Model related to family and kinship, community, country, spirit, spirituality, and ancestors. It also is relevant to our evidence-based themes and subthemes, especially the culturally meaningful theme.

In a survey of 47 organizations nationally about how anti-tobacco media messages were developed in Australia, Gould et al. [24] found that Aboriginal Medical Service were significantly more likely to report using deep structure in tailoring messages compared with non-government and government organizations. A dimension of “cultural understanding” evolved from a principal component analysis based on Aboriginal and Torres Strait Islander community engagement processes and the use of bottom-up approaches, community-based empowerment models and deep structure. Aboriginal organizations were more likely to excel in the use of this dimension [24].

Sinicrope et al. [25] described the protocol for the development of a social media intervention for Facebook to help Alaska Native people quit smoking based on cultural variance and surface/deep structure frameworks. The cultural variance framework considers the cultural influences on health behaviors in designing health messages including beliefs and norms, values, and Indigenous knowledge systems or ways of knowing [26]. The campaign used a co-design process based on digital storytelling with Alaska Native people who smoked and stakeholders. The phased, mixed methods approach evaluated existing media message content and co-develop test concepts for video and text-based messages and a Facebook group page. The videos, images and text are to be beta-tested through an online survey for cultural fit and impact along a range of indicators [25].

3. Strengths and Limitations of the Review

The cultural and methodological rigor embedded in our approach to the review and examination of evidence for social media campaign has not been done before for this particular population. Key components of this methodology included Aboriginal and Torres Strait Islander women as the focus of their studies who are the target audience of the included campaigns and honoring combined strengths of Aboriginal and non-Aboriginal researchers. We used strong theoretical frameworks from Aboriginal and Torres Strait Islander knowledges and behavioral and implementation science. The barriers and enablers to smoking cessation amongst pregnant Indigenous women have similarities internationally in high-income countries, although historical circumstances and social and cultural characteristics differ [27][28][29]. The methodology we developed here ensured that literature that only focused on Aboriginal and Torres Strait Islander women to ensure these women's knowledge, attitudes and beliefs would inform the development of smoking cessation campaigns. This methodology the potential to inform the development and analysis of smoking cessation campaigns for pregnant First Nations women internationally.

There were a few limitations to the review. As a rapid review, not all the steps usually used in a systematic review were included. The search date was only until July 2019 and more recent peer-reviewed articles and campaigns may have been omitted. However, our findings will have immediate practical application in the development of an Australian Department of Health iSISTAQUIT social media campaign for pregnant Aboriginal and Torres Strait Islander women. These findings will guide the development of the community consultation and the media campaign to ensure that the topics explored are holistic according to the Aboriginal and Torres Strait Islander view of health and encompass the women's requirements.

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