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Perspectives of socially disadvantaged women on oral healthcare during pregnancy

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Oral health is considered important during pregnancy, however many pregnant women, especially socially disadvantaged women such as immigrants, working poor and homeless have difficulty accessing oral healthcare. ***Objective:*** To explore the perceptions of a sample of socially disadvantaged women on oral healthcare provision during pregnancy. ***Basic research design:*** Qualitative study via focus group discussions with seventeen pregnant women or new mothers receiving care at a local maternity clinic that serves a culturally diverse population facing social challenges. ***Participants:*** Women who met at least one of the following criteria: low socio-economic status, new immigrant or refugee, homeless or at risk of homelessness, history of incarceration or substance abuse or at risk of abuse. Discussions were audio-recorded, transcribed verbatim and analyzed thematically using the NVivo 11© software programme for coding and thematic analysis. ***Results:*** All participants reported unmet oral healthcare needs. The analysis revealed three main themes: knowledge of the importance and value of oral health during pregnancy, experiences with oral healthcare and provision of oral health services to socially disadvantaged pregnant women. Participants favoured inclusion of preventive oral healthcare provided by either dental or prenatal healthcare professionals in routine prenatal care. ***Discussion:*** Socially disadvantaged pregnant women did not access the oral healthcare they needed due to cost, dental fear and anxiety; some faced stigma and discrimination. They were disposed to receiving community-based, primary preventive dental services as part of prenatal care from either dental or prenatal allied healthcare professionals.

Keywords: *pregnancy, oral health, prevention, integration, prenatal care*

Introduction

Oral healthcare has been recognised as important during pregnancy because of possible associations with fetal health, pregnancy outcomes, and occurrence of childhood oral diseases (Boggess and Edelstein, 2006). In general, women report more dental visits than men (CDA, 2017), however they typically do not seek or receive dental care during pregnancy, even though oral diseases appear to be more prevalent among pregnant than non-pregnant women (Hartnett *et al*., 2016; Riggs *et al*., 2016). Socially disadvantaged groups such as new immigrants, the working poor, the homeless, or those at risk of abuse are reported to have an even higher prevalence of oral diseases (CAHS, 2014; CDA, 2017; Riggs *et al*., 2016). The prevalence is even higher if they are women who are pregnant (CDA, 2017). Research suggests that these groups tend to have lower oral health knowledge and poorer oral health behaviours, further increasing their susceptibility to oral diseases (CAHS, 2014). In addition, when oral diseases occur in this population, they are often unable to afford preventive or curative treatment.

A recent study among pregnant women in Victoria, Australia reported that while more than 50% of the participants required dental care, only 38% received it (Riggs *et al*., 2016); cost was identified as a barrier to accessing needed care. Another survey conducted among pregnant women in Surrey, British Columbia (BC), also revealed that less than half had visited a dental professional for regular care in the preceding twelve months (Jessani *et al*., 2016). From the Jessani (2016) study, those who reported difficulty living on their income and/or who had no dental insurance reported longer periods since their last dental visit, suggesting that affordability may be an important determinant of dental attendance among pregnant women. Affordability was also a major factor for almost 25% of Canadians who avoided visiting a dental office in the previous 12 months (Health Canada, 2010).

Other than affordability, factors including poor knowledge of oral care, geographic location and provider availability further hinder access to oral healthcare (Hartnett *et al*., 2016; Rocha *et al.*, 2018a; b). Considering the higher susceptibility to oral disease during pregnancy, and poor access to preventive and curative oral healthcare for socially disadvantaged women, integration of services surfaces as a viable alternative to address the healthcare needs of this population (Boggess and Edelstein, 2006; WHO, 2016). Integrated healthcare services focus on the provision of all services required by clients in a manner that is continuous and respectful of patient preferences. In line with this approach, healthcare agencies have recommended that oral healthcare should be integrated with routine prenatal care as a strategy for preventing oral disease and promoting access to oral healthcare during pregnancy (National Maternal and Child Oral Health Resource Center, 2012). This strategy has been adopted as a national level policy in Brazil for all pregnant women (MoH Brazil, 2016) and a guideline in some states in the United States (National Maternal and

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Child Oral Health Resource Center, 2012). Since women constitute a high proportion of persons living below the poverty line compared to men in BC (Wallace and MacEntee, 2012) and given the importance of oral healthcare during pregnancy, we designed this study to identify alternative approaches for delivering oral healthcare to socially disadvantaged women during the pregnancy period. Therefore, this study sought to explore the knowledge and perceptions of oral healthcare provision during pregnancy according to the views of a sample of socially disadvantaged women attending a maternity clinic in Surrey, BC.

Methods

We conducted a qualitative exploratory study among pregnant women and new mothers at the maternity clinic which serves a culturally diverse population. The clinic targets women facing challenges such as poverty, homelessness and substance use. We included socially disadvantaged woman who met at least one of the following criteria: being a low-income earner, being a new immigrant or refugee, being homeless or at risk of homelessness, having a history of incarceration or substance abuse or at risk of abuse. Many of these challenges intersect and several study participants experienced more than one challenge. Participants were recruited by clinic staff who had developed rapport with the clients and who purposefully identified pregnant women they considered representative of our inclusion criteria who would be able to provide insight to our research questions. The authors were not involved in participant recruitment. Given our focus on exploring knowledge and perceptions of oral healthcare provision during pregnancy, potential participants had to be currently or recently pregnant women who accessed or tried to access oral healthcare services during their pregnancies. Low-income persons were defined as those earning less than $20,000CAD annually. New immigrants were those who had migrated less than 24 months before the study.

Data were gathered in audio-recorded focus group discussions (FGD). Focus groups have value in eliciting norms for groups and generate information through interactions between participants, whereby they express different views and reflect further upon their standpoint. They may also increase the *sense of belonging to* people who share similar stories but do not necessarily know each other (van Dongen *et al.*, 2017). Seventeen women participated in three focus group discussions; two with six women and one with five. Approval for this study was obtained from the University of British Columbia Behavioral Research Ethics Board (#H20-03326). Participants signed a written informed consent after receiving full explanation of the study.

The FGD were moderated by a co-author (DL or LD), while the other managed the audio recordings, documented the sequencing of participants' involvement and took field notes of relevant events during the discussion. A semi-structured discussion guide was based on a literature review related to oral health in pregnancy. The guide elicited information on the potential relationship between oral health and pregnancy; knowledge, attitudes and beliefs related to oral care, current and past experience with the dental care system; and suggestions for providing preventive oral healthcare services during and after pregnancy. After the discussions, participants were debriefed on the session to correct any misinformation expressed. Each participant received $25 gift vouchers as appreciation for their participation.

For textual data analysis, all audio recordings were transcribed verbatim and combined with the field notes using *N-Vivo 11©*. Thematic analysis emphasizes the patterns or 'themes' within data, that are judged important to the description of the participants' experiences associated with the study objectives (Braun, 2006). We used thematic analysis as an umbrella term for a variety of different qualitative approaches, rather than a single method of analysing the textual information. Before input into *N-Vivo 11©,* all participants' identifiers were removed from the data. An inductive analytic approach allowed themes to emerge from the data. This was done by reading and re-reading the transcripts to become familiar with the narratives. Then primary codes were attached to excerpts to describe the essence of the narratives and to identify key issues. Closely related codes were amalgamated into subthemes, with main themes consisting of several subthemes. Emerging codes, subthemes and themes were developed by two of the authors (AA, LD), and their work compared to ensure inter-coder consistency. The themes and subthemes were then discussed by all authors until consensus was reached (Brondani *et al.,* 2017; Donnelly *et al.,* 2016).

Results

The study included 17 participants with a mean age of 31.4 (±6.2) years. Other characteristics of the participants are presented in Table 1. The analysis revealed three main themes: knowledge of the importance and value of oral health during pregnancy, experiences with oral healthcare, and the provision of oral health services to socially disadvantaged pregnant women (Figure 1).

Theme 1: Knowledge of the importance and value of oral health during pregnancy.

Participants were aware of the need for and benefits of good oral hygiene, good dietary choices and the causes of tooth decay. They mostly agreed that regular tooth brushing is a critical factor for achieving and maintaining good oral health. However, some participants displayed low awareness of pregnancy-related oral conditions, of the relationship between oral health and pregnancy outcomes, and of the need for preventive dental care during pregnancy. Many participants considered changes in dietary patterns during pregnancy as the only possible reason oral health would be important. Although some mentioned experiencing dental problems (specifically bleeding gums and tooth sensitivity), they were unaware of any associations between dental problems and pregnancy as evidenced by the statement of one participant: "*I feel like the thing I've read is and I've heard during all my three pregnancies is bleeding gums that are swollen and tender to brush and that kind of thing but otherwise I don't think there is a big connection between the two."*

One participant accurately identified the link between oral health and pregnancy by commenting on the presence of periodontal disease as a potential risk factor for poor pregnancy outcomes and poor infant oral health.

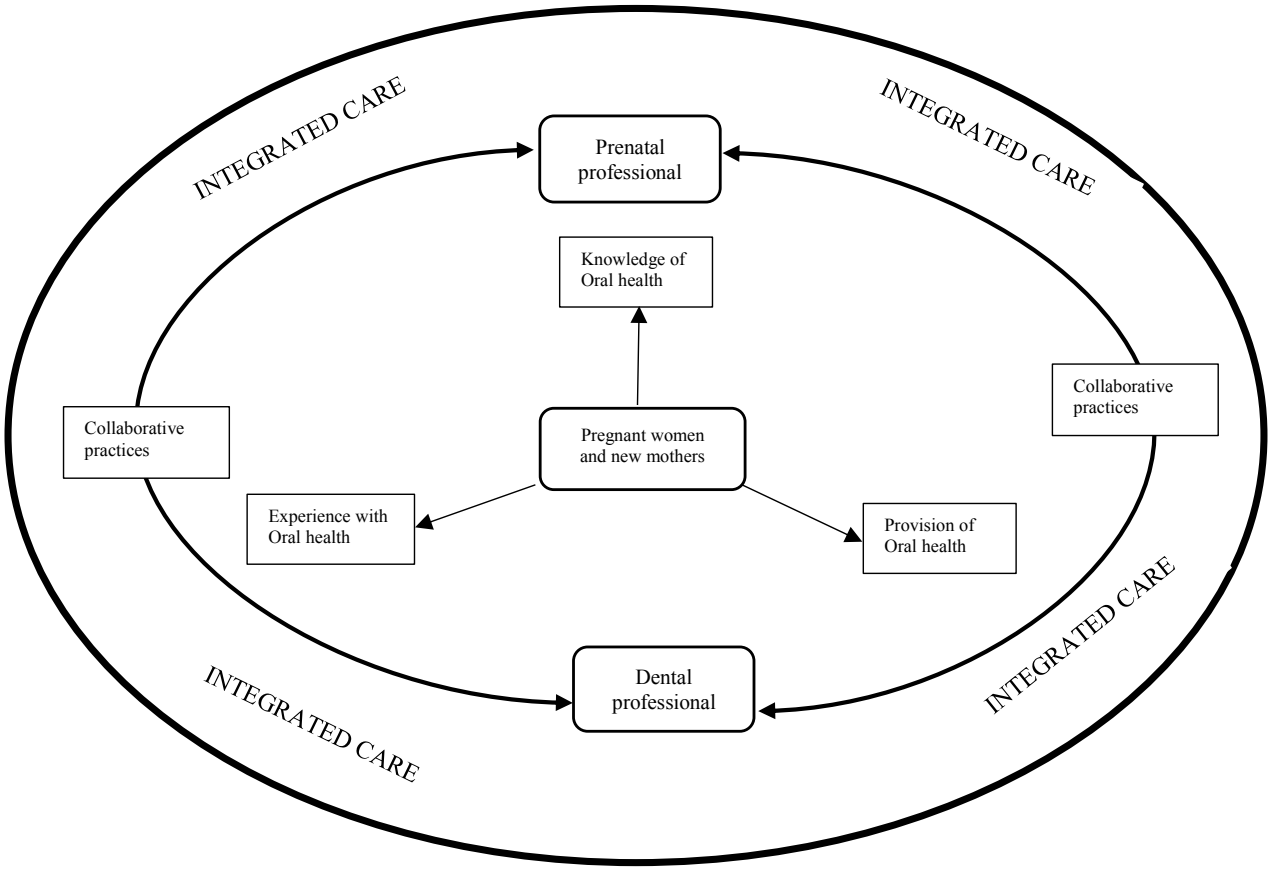

*Figure 1: Women's Perspectives on oral health care during pregnancy**
** The Large oval represents the health system within which oral health services will be provided.*

Table 1. Characteristics of 17 study participants

Self-reported Ethnicity	*Age*	*No. of pregnancies*	*Marital status*	*Education*	*Self-reported general health*	*Self-reported oral health*	*Dental visit in last 12 months*
White	30	2	Widow	Elementary	Fair#	Poor	Yes
	26	1	Single	High School	Poor*	Poor	No
	28	1	Common-law	College	Good*	Good	No
	31	1	Single	Elementary	Good#*	Good	Yes
	38	2	Divorced	University	Good*	Good	Yes
	33	3	Married	College	Good*	Poor	Yes
	29	2	Single	High School	Good*	Poor	No
	39	1	Married	College	Good[a]	Good	Yes
	21	1	Single	High school	Fair	Fair	No
South Asian	38	2	Married	University	Good	Good	Yes
	41	2	Married	University	Excellent[a]	Good	Yes
Asian	34	1	Single	Other	Good#	Good	Yes
Aboriginal	29	2	Common-law	G.E.D.	Fair	Poor	No
Metis	24	1	Other	High School	Excellent	Fair	Yes
Indian	35	3	Married		Good	Good	Yes
Mixed (Filipino-Canadian)	22	2	Single	High school	Fair	Good	Yes
African	36	1	Married		Good	Good	Yes

mental health concerns e.g. OCD
* history of substance abuse
a Other medical concerns e.g. diabetes

This participant identified her sister, a certified dental assistant, as the source of her information. While most participants cited family members in particular mothers, grandmothers and husbands as sources of oral health information, others made use of the internet (particularly Google®) and prenatal books (e.g. those obtained free of charge from the local Health Authority during prenatal care visits) to acquire information. Two participants also reported obtaining information directly from their dentists.

Few participants received oral health related information from non-dental healthcare professionals such as family physicians, nurses and midwives, as exemplified by one participant, despite contact with a variety of health professionals during and after her pregnancy: "*My daughter was in the intensive care unit for three months because she was premature, they approached me about everything and anything else. They taught me about everything else with kids like I even had infant development ladies come. All other aspects are taken care of but never have teeth been mentioned"*.

Some women considered dental care during pregnancy as risky, as illustrated by one participant' "*I am not scared about the cleaning; I'm scared about the x-rays that's my concern*". This was echoed by another participant who commented on the potential negative impact of x-rays on the developing foetus. Overall participants, suggested waiting till after delivery before seeking regular dental care.

Theme 2: Experiences with oral healthcare.

Of the 17 participants, only three reported a dental visit during their pregnancy. Most women regarded oral healthcare as important, but did not consider it a priority. Generally, the participants viewed dental care as expensive and reported having limited or no dental insurance coverage as a major barrier to seeking regular dental care. Another barrier revealed was fear of the dentist, as we were told: "*I have major anxiety when it comes to going to the dentist ... and that is a major reason why I haven't been to the dentist in a year.*" Two other participants corroborated this view by citing previous traumatic experiences as the genesis of their fear and anxiety. One participant suggested the use of "*dope*" (pre-visit anxiety medication) to indicate how some women would cope with dental fear and anxiety.

The attitude of dental professionals was also mentioned as a barrier to care. Some participants described feeling stigmatized because of their history of incarceration or substance abuse. For example, one relayed her recent experience in a dental clinic "*I just had a fight at a dental office because I come from addiction, I go for 15 years* (in prison) *and yeah she was being judgmental because of my history"*. Others reported noticing that dental professionals adopt a patient blaming approach when providing care "*people are like oh you haven't been flossing and I'm like, I don't have the patience'. I get the judgmental. I don't need that, I am aware of the way my teeth are*"

The location of the dental clinic was another barrier. Many participants reported seeking care in dental clinics far from their residence because these clinics were more affordable. One participant mentioned the challenge of finding childcare during such dental visits. They also noted that reduced-cost clinics are often situated in less secure areas, which could discourage utilization by women with children.

Theme 3: The provision of oral health services to socially disadvantaged pregnant women.

Many participants expressed a desire to receive oral healthcare that was integrated with other services during pregnancy. They considered it beneficial because they would be able to receive needed care promptly and with less stress. They suggested the establishment of dental clinics within maternity facilities as a strategy to increase access in recognition of the challenges associated with raising children such as time constraints and finding appropriate care. In the words of one participant: "*If you're already coming here for your prenatal checkup and everything, I think it would benefit you know without coming twice. You're coming for one visit and if you have questions about one certain thing, you can ask and deal with it at the time and not another two weeks when you have to wait.*"

In describing services that could be offered at maternity centres, many suggested oral health education, dental screening, diagnosis and oral hygiene therapy as priorities. Many of these services can be provided by non-dental healthcare providers. Participants were also interested in receiving information about oral hygiene methods and tools both for personal use and their children's use. Most agreed that oral health education provided by non-dental professionals would be acceptable as long as they were provided by knowledgeable persons; *"I'd rather get it from someone who actually knows and can explain more ...so I think that if we had someone who we actually knew, it would help more and we could ask the questions we want there."*

Participants suggested establishing dedicated prenatal oral health classes or an interactive online blog or website as alternative approaches for providing oral health education. Further describing the structure of acceptable oral health services, participants suggested that dental treatments should be affordable, and if possible, free for socially disadvantaged women, as many are low-income, have no dental insurance and cannot afford regular dental fees. According to one participant *"I have to find money for that [dental treatment] and it's not covered, I will not do it. Because I have priorities, my baby is drinking milk and stuff, it [dental treatment] wouldn't be a priority for me now."*

As they told us, their interest in oral hygiene therapy was based on concern that such services are usually not included in the emergency dental cover provided by the government for low-income individuals. Additionally, they also recommended that services for eligible women should extend to their infant and that disadvantaged women should be allowed to receive care till their infants' first birthday: *"I'm just wondering cause [certain services] are offered only while you're pregnant, what about after pregnancy? Cause if you don't have money, you still don't have money especially after you have the child. So, I was wondering if it would continue."*

It was also apparent that the participants believed that the services should be provided in a friendly, comfortable and relaxing environment with one of the women stating that "*I don't want [the dentist] to rush, I want him to take his time and not let it hurt*."

Discussion

This study explored the knowledge and perceptions of oral healthcare provision during pregnancy among a purposeful sample of socially disadvantaged pregnant women and new mothers living in Surrey, BC. It identified three main themes: knowledge of the importance and value of oral health during pregnancy, experiences with oral healthcare, and the provision of oral health services to socially disadvantaged pregnant women. Understanding the factors that lead socially disadvantaged pregnant women to underutilize dental care is valuable in formulating future oral health promotion programs for this population. As good health of the pregnant mother and her child are critical during and after pregnancy, the provision of services that would address their health needs is recommended (Farmer Dixon *et al*., 2016). This is a major reason why the inclusion of preventive oral healthcare in the prenatal period has received more attention in recent years (Farmer Dixon *et al*., 2016; National Maternal and Child Oral Health Resource Center, 2012). Socially disadvantaged women at a higher risk of developing dental disease and with lower access to care have been identified as an important population requiring preventive oral health services during pregnancy (Buerlain *et al*., 2011; Hartnett *et al*., 2016).

Although most participants had some knowledge of oral health, their understanding of the relationship between pregnancy and dental problems was poor, a finding reported in previous studies (Riggs *et al*., 2016; Jessani *et al*., 2016). This observation may explain some of the misconceptions expressed about dental care during pregnancy as being dangerous or unnecessary, which might be information spread by social networks and passed along by different generations as culturally bound (Rezende, 2011). On the other hand, the excellent knowledge of oral health in pregnancy by one participant emphasizes the importance and value of exposure to accurate information. Most participants also identified limited access to accurate oral health information during pregnancy as a challenge, further highlighting the need for oral health education in this population.

Most participants experienced barriers to care during pregnancy and identified cost as the most common barrier, reported followed closely by dental fear and anxiety, as in previous studies (Health Canada, 2010; IOM, 2012; Riggs *et al*., 2016; Rocha *et al*., 2018a, b). However, the report of stigma experienced by participants with a history of incarceration or substance abuse highlights yet another barrier in this population. Although a systematic review by Rocha et al. (2018a) only found two studies out of 14 that identified stigma as a barrier to dental care during pregnancy, our findings may relate to socially disadvantaged women who tend to feel and experience more stigma. The delivery of preventive oral healthcare to this population should therefore occur in a culturally sensitive and destigmatizing manner to accommodate their needs (Garcia *et al*., 2008).

Accordingly, the delivery of oral health information was a priority requested by most participants, who were willing to receive this service from either oral health or prenatal care professionals. Figure 1 depicts our interpretation of participants views on oral health care provision during pregnancy. This is an indication that pregnant women are likely supportive of integrated care and interprofessional collaborative practices during prenatal care, a similar observation was noted among pregnant women in Australia (George *et al*., 2012). This finding is important considering the interest in promoting integrated healthcare (Mouradian *et al.,* 2014; WHO, 2016) as well as interprofessional collaborative practices in general (WHO, 2010), especially during pregnancy (Farmer Dixon *et al*., 2016).

The provision of preventive oral health services by trained prenatal care professionals has been suggested as a good method to increase access to comprehensive oral health education, assessment of healthcare needs and referral to dental professionals (Hayes *et al*., 2015). This approach has been adopted by some US states (National Maternal and Child Oral Health Resource Center, 2012) and has been successful in the drive to reduce early childhood caries (Nakai *et al*., 2016). Our findings suggest that socially disadvantaged women consider this a suitable approach for care delivery. Since the participants suggested receiving oral health services from either prenatal or dental professionals and other healthcare providers, these providers could operate within an integrated model based on interprofessional collaboration whereby all the professionals involved in healthcare for pregnant women co-existing at the intersection of these services. Integrated care could ensure continuity of care. The portrayal of integrated care within the existence of interprofessional collaborative practices is supported by others (WHO, 2016). Moreover, studies have suggested that health professionals are interested in interprofessional collaborative practices, (Mouradian *et al.*, 2014; Riggs *et al*., 2016) and further research is suggested to determine their views on its feasibility during prenatal care. Although our findings highlight the importance and value of oral health during pregnancy, the need to account for the experiences with oral healthcare, and to provide oral health services to socially disadvantaged pregnant women in an integrated fashion, there is little exploration of how to integrate services. Further research is needed to identify ways by which integrated collaboration can truly occur during prenatal care.

Despite its value, our study has some limitations, including the inability to generalize its findings to all socially disadvantaged women, because it is based on a relatively small purposive sampling of pregnant women and new mothers. Another limitation arises from omitting women who had no recent dental visits, which could have increased the value of the study. Furthermore, limited funding did not allow us to engage with more participants, thereby limiting the breadth of our study findings. Hence, some other socially disadvantaged pregnant women or new mothers might not have felt comfortable taking part. Nevertheless, the study has provided insight into how socially disadvantaged pregnant women would like oral health to be addressed during prenatal care. Further studies such as systematic reviews could identify existing models for integrated oral healthcare for pregnant women. Also, studies among prenatal and oral healthcare professionals might explore their views provision of oral health services during pregnancy.

Conclusion

Socially disadvantaged pregnant women are not receiving the oral healthcare they need due to cost, dental fear and anxiety; some may even face stigma and discrimination. The study highlights the desire of socially disadvantaged women to receive preventive oral health services as part of routine care during pregnancy and their willingness to receive such services from both prenatal and oral health professionals.

References

Boggess, K. A. and Edelstein, B. L. (2006): Oral health in women during preconception and pregnancy: implications for birth outcomes and infant oral health. *Maternal and Child Health Journal* **10**, 169-174.

Braun, V. and Clarke, V. (2006): Using thematic analysis in psychology. *Qualitative Research in Psychology* **3**, 77-101.

Brondani, M. A., Alan, R. and Donnelly, L. (2017): Stigma of addiction and mental illness in healthcare: the case of patients' experiences in dental settings. *PloS one* **12**, e0177388.

Buerlein, J. K., Horowitz, A. M. and Child, W. L. (2011): Perspectives of Maryland women regarding oral health during pregnancy and early childhood. *Journal of Public Health Dentistry* **71**, 131-135.s

Canadian Academy of Health Sciences. (2014): *Improving Access to Oral Health Care for Vulnerable People Living in Canada*. Canadian Academy of Health Sciences, Académie Canadienne des sciences de la santé.

Canadian Dental Association. (2017): *The State of Oral Health in Canada*.

Donnelly, L. R., Bailey, L., Jessani, A., Postnikoff, J., Kerston, P., and Brondani, M. (2016): Stigma experiences in marginalized people living with HIV seeking health services and resources in Canada. *Journal of the Association of Nurses in AIDS Care* **27**, 768-783.

Dooley, S., Lincoln, A., Smith, M., O'Neil, M. E., Ahluwalia, I. B., D'Angelo, D. V. and Morrow, B. (2010): Perceived health needs and receipt of services during pregnancy-Oklahoma and South Carolina, 2004-2007. *Morbidity and Mortality Weekly Report* **59**, 710-714.

Farmer-Dixon, C., Thompson, M. F., Young, D., McClure, S. and Halpern, L. R. (2016): Interprofessional Collaborative Practice: An Oral Health Paradigm for Women. *Dental Clinics of North America* **60**, 857-877.

Garcia, R. I., Cadoret, C. A. and Henshaw, M. (2008): Multicultural issues in oral health. *Dental Clinics of North America* **52**, 319-332.

George, A., Johnson, M., Duff, M., Ajwani, S., Bhole, S., Blinkhorn, A. and Ellis, S. (2012): Midwives and oral health care during pregnancy: perceptions of pregnant women in south-western Sydney, Australia. *Journal of Clinical Nursing* **21**, 1087-1096.

Hartnett, E., Haber, J., Krainovich-Miller, B., Bella, A., Vasilyeva, A. and Kessler, J. L. (2016): Oral health in pregnancy. *Journal of Obstetric, Gynecologic & Neonatal Nursing* **45**, 565-573.

Hayes, D. K., Turnure, M., Mattheus, D. J. and Shannon, M. T. (2015). Predictors of dental cleaning over a two-year time period around pregnancy among Asian and native Hawaiian or other Pacific islander race subgroups in Hawai'i, 2009–2011. *Hawai'i Journal of Medicine & Public Health* **74**, 328.

Health Canada. (2010): *Summary Report on the Findings of the Oral Health Component of the Canadian Health Measures Survey, 2007-2009*. Health Canada.

IOM (Institute of Medicine), National Research Council. (2012): *Improving access to oral health care for vulnerable and underserved populations*. National Academies Press.

Jessani, A., Laronde, D., Mathu-Muju, K. and Brondani, M. A. (2016): Self-perceived oral health and use of dental services by pregnant women in surrey, British Columbia. *Journal of the Canadian Dental Association* **82**, g28.

Ministry of Health (BR) (2016): Protocols of Primary Care. In: *Women's Health Care. Brasília: Ministry of Health; 2016*.

Mouradian, W. E., Lewis, C. W. and Berg, J. H. (2014): Integration of dentistry and medicine and the dentist of the future: the need for the health care team. *Journal of the California Dental Association* **42**, 687–96.

Nakai, Y., Mori, Y. and Tamaoka, I. (2016): Antenatal health care and postnatal dental check-ups prevent early childhood caries. *The Tohoku Journal of Experimental Medicine* **240**, 303-308.

National Maternal and Child Oral Health Resource Center (2012): *Oral Health Care During Pregnancy: A National Consensus Statement: Summary of an Expert Workgroup Meeting*. National Maternal and Child Oral Health Resource Center, Georgetown University.

Rezende, C. B. (2011). The experience of pregnancy: subjectivity and social relations. *Vibrant: Virtual Brazilian Anthropology* **8**, 529-549.

Riggs, E., Yelland, J., Shankumar, R. and Kilpatrick, N. (2016): 'We are all scared for the baby': promoting access to dental services for refugee background women during pregnancy. *BMC pregnancy and childbirth* **16**, 12.

Rocha, J. S., Arima, L., Chibinski, A. C., Weneck, R. I., Moyses, S. J. and Baldani, M. H. (2018): Barriers and facilitators to dental care during pregnancy: a systematic review and meta synthesis of qualitative studies. *Cad Saude Publica* **34,** e00130817

Rocha J. S., Arima, L., Weneck, R. I., Moyses, S. J. and Baldani. (2018): Determinants of Dental care attendance during pregnancy: A systematic review. *Caries Research* **52**, 139-152.

Sabbah, W., Tsakos, G., Sheiham, A. and Watt, R. G. (2009): The role of health-related behaviors in the socioeconomic disparities in oral health. *Social Science & Medicine* **68**, 298-303.

van Dongen, J. J. J., de Wit, M., Smeets, H. W. H., Stoffers, E., van Bokhoven, M. A. and Daniëls, R. (2017). "They are talking about me, but not with me": A focus group study to explore the patient perspective on interprofessional team meetings in primary care. *The Patient: Patient-Centered Outcomes Research* **10**, 429-438.

Wallace, B. B. and MacEntee, M. I. (2012). Access to dental care for low-income adults: perceptions of affordability, availability and acceptability. *Journal of Community Health* **37**, 32-39.

World Health Organization. (2010): *Framework for action on interprofessional education and collaborative practice* (No. WHO/HRH/HPN/10.3). Geneva: World Health Organization.

World Health Organization. (2016): *Report on the public consultation to inform development of the Framework on integrated people-centred health services* (No. WHO/HIS/SDS/2016.4). World Health Organization.