Knowledge, Attitude and Practice Behaviours among Gynaecologists and Dental Practitioners towards Oral Health in Pregnant Patients

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ABSTRACT

The aim of study was to assess the current knowledge, attitude and practice behaviours of gynaecologists and dentists as to the dental care to pregnant patients. Improving the oral health of pregnant women prevents complications of dental diseases during pregnancy. It has the potential to decrease early childhood caries and may reduce preterm and low birth weight deliveries. A pretested questionnaire containing 12 questions that aimed to evaluate the knowledge and practiced behaviors of the gynecologists and dental practitioners towards oral health care of pregnant patients. A total of 27 gynaecologists and 27 dental practitioners were approached to voluntarily participate and fill up the questionnaire. The results were tabulated and statistically analysed. 91.1% of the gynaecologists never examined the oral cavity during routine check-ups. 81.5% of the dental practitioners felt that oral health screening and referral to dentist should be routinely included in prenatal care. Oral health professionals require knowledge on pregnancy specific education to provide appropriate preventive and curative care to pregnant patients. Maternal health care professionals can play an essential role in connecting pregnant woman to the source of dental care to promote good oral health.

Keywords: gynaecologist, dentist, pregnancy, prenatal care, birth outcomes.

INTRODUCTION

Pregnancy is a special state for a woman, which is associated with a myriad of emotional and physiological changes in different parts of body including oral cavity and dental health. These changes predispose women to dental caries and gingivitis.¹

Most women do not access oral health care during pregnancy despite evidence that poor oral health can have an adverse impact on the health of a pregnant woman and her child.²

During the past few years, there has been increasing interest in the oral health of pregnant patients. One reason is the reported association between maternal periodontal infection during pregnancy and obstetric complications including preeclampsia and premature birth.³

Pregnancy gingivitis and periodontitis is by far the most common oral condition observed amongst pregnant patients. During pregnancy, there is an increase in the hormones estrogen and progesterone. These hormones have been found to affect periodontal disease progress and wound healing. Both these hormones lead to increased gingival vascularization and decreased immune response. Moreover, studies reveal that during pregnancy, there is increase in some types of microorganisms (Provetella species) which tend to utilize the steroidal hormones of pregnancy for their growth. These microorganisms increase the tendency of the gums to bleed and worsen gingival inflammation. As a result, pregnant patients have severe gingival inflammation even with reasonably low plaque levels.⁴

Improving the oral health of pregnant women prevents complications of dental diseases during pregnancy. It has the potential to decrease early childhood caries and may reduce preterm and low birth weight deliveries. Evidence suggests that most young children acquire caries-causing bacteria from mothers. Cariogenic or decay-causing bacteria are typically transmitted from mother or caregiver to child by behaviours that directly pass saliva, such as sharing a spoon when tasting baby food.⁵

This study was done to evaluate the knowledge, attitude, practice behaviors and barriers regarding prenatal oral health care among gynecologists and general dental practitioners.

MATERIALS AND METHODS

A pretested questionnaire containing 12 questions that aimed to evaluate the knowledge and practiced behaviors of the gynecologists and dental practitioners towards oral health care of pregnant patients. A total of 27 gynaecologists and 27 dental practitioners were approached to voluntarily participate and fill up the questionnaire.

The questionnaire had demographic information about all participants, and Knowledge, attitude, practice behaviours (KAP) about preventive care, routine checkup and prescribing medications to pregnant patients. Questions also included about prescribed drugs to patients to control pain or treat infection. Especially about paracetamol, ibuprofen, aspirin non-steroidal anti-inflammatory drugs (NSAIDs) and specific antibiotic
agents such as doxycycline, penicillin and metronidazole. The results were tabulated and statistically analysed.

**RESULTS**

Association between pregnancy outcomes and oral health was recorded on the basis of gynaecologists' knowledge. Gynaecologists with lack of time and limited access to the oral health care professionals (60%, 36.7%) were less likely to refer to oral care services for pregnant patients. 91.1% of the gynaecologists never examined the oral cavity during routine check-ups. They were aware about maternal periodontitis and its adverse outcomes (61.4% - pre eclampsia, 56.7% - preterm labour and low birth weight.). About the indication of antibiotics, the practice behaviours of gynaecologists towards the use of tetracycline in pregnant women and its birth outcomes were assessed. About 89% of gynaecologists never prescribed tetracycline as an antibiotic to pregnant patients and about 73.7% of gynaecologists felt that tetracycline is not safe for the foetus.

Attitude, knowledge and practice behaviours of dental practitioners were recorded. 51.9% of the dentists felt that dental treatment can be delivered safely at any time during pregnancy. They were also aware about maternal periodontitis and its adverse outcomes (44.4% - pre eclampsia, 48.1% - preterm labour and low birth weight). 40.7% of the dentists were aware that cariogenic bacteria can be transferred from mother to the offspring. As to indications of good oral health, 85.2% of the dentists formulated diet plans for prevention of dental caries and periodontitis, 81.5% of the dental practitioners felt that oral health screening and referral to dentist should be routinely included in prenatal care. About 92.6% of the dental practitioners referred the pregnant patients to consult their gynaecologists while prescribing drugs. As an indication of analgesics, paracetamol was the first choice by 55.4% dental practitioners and penicillin was the first choice of antibiotic drug by 57.9% dental practitioners. A total of 66.7% of the dentists felt that lack of knowledge on prenatal oral health care as a barrier for inappropriate oral health care of pregnant patients.

**DISCUSSION**

World health organization defines oral health as "being free of chronic mouth and facial pain, oral and throat cancer and other diseases and disorders that affect the mouth and oral cavity". Oral health is essential to the health and well-being of both the pregnant mother and her baby. Recent studies shows a positive correlation between presence and severity of periodontal disease and risk of premature labor and low birth-weight. Of all the changes, the most well-known is the pregnancy gingivitis and pregnancy epulis (alternate names - pregnancy tumour, epulis gravidarum, pregnancy granuloma). A bacterial film that grows on the teeth, resulting in plaque accumulation is the cause for the disease. The hormonal changes during pregnancy will induce high levels of prostaglandins by periodontal infection that would disrupt the hormonal homeostasis which exaggerate the gum tissues react to the bacteria in plaque, thus resulting in a higher chance of pregnant women getting gingivitis. Periodontal pathogens have been found not only in supra and sub gingival plaque, gingivo-crevicular fluid, and periodontal tissues, but also dispersed systemically in maternal serum and plasma, vagina, placenta, amniotic fluid, and umbilical cord. Transient bacteremia and hematogenous transmission may occur as a result of the treatment or when the periodontal conditions becomes severe. Thus, periodontal infection remained as a plausible cause for a preterm condition by inducing an inflammatory process with production of cytokines in the placental area.
CONCLUSION

Oral health professionals require knowledge on pregnancy related education to provide apt care to pregnant patients. Maternal health care professionals can play an essential role in referring pregnant women to the dental care to promote good oral health.

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REFERENCES


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