

Antenatal Care Providers Perspective on Pregnancy and Oral Health

Dr. Sumana Thapa,¹ Dr. Indira Acharya²

^{1,2}Department of Obstetrics and Gynaecology,
Nepalese Army Institute of Health Sciences, Kathmandu, Nepal

Correspondence:

Dr. Sumana Thapa. Email: karikisumana@gmail.com

ABSTRACT

Introduction: Pregnancy and oral health have garnered much interest in recent times. Evidence suggests that poor maternal oral health may represent potential source of microorganisms that routinely enter the circulation, and affect the health of foetus as well as mother. Studies also show poor oral hygiene to be linked with pregnancy complications such as preeclampsia, premature birth and low birth weight.

Objective: The objective of the study was to assess the awareness of maternal oral health and pregnancy association among the antenatal care providers.

Materials and Method: The study was carried out among 190 antenatal care providers (obstetricians and gynaecologists, general practitioners, internists and medical officers) registered at Nepal Medical Council (NMC). The questionnaire survey items were derived from previous studies. The data was entered in Microsoft Excel and analysed using SPSS version 17.0. The level of significance was set at 0.05 and confidence interval at 95%.

Result: The age of the participants (Male 126, 66.3%; Female 64, 33.7%) varied from 26 years to 61 years (31.79 ± 6.09). The knowledge of the effect of poor health on adverse pregnancy outcomes was found to be statistically significant ($p=0.041$) with 40 (21.1%) OBGYN participants answering correctly compared to other antenatal care providers.

Conclusion: The obstetricians and gynaecologists had better understanding of poor oral health affecting pregnancy outcomes adversely compared to other antenatal care providers.

Keywords: Antenatal care providers; oral health; pregnancy; questionnaire.

INTRODUCTION

In recent times there has been increasing interest and awareness regarding pregnancy and maternal oral health. One of the reasons could be the possible link between maternal oral status and pregnancy complications such as premature birth, low birth weight and preeclampsia.¹ There is increasing evidence to support this lack of awareness among health professionals about long term consequences of poor oral health and risk associated with poor

oral hygiene especially during pregnancy.² Similarly, there is limited evidence about the perceptions of such antenatal care (ANC) providers in context to Nepal. The purpose of the study was to assess the awareness of maternal oral health and pregnancy association among the antenatal care providers.

MATERIALS AND METHOD

This questionnaire study was carried out for a period of one month (2018 February) utilizing a

cross-sectional study design among 190 antenatal care providers (obstetricians and gynaecologists, general practitioners, internists and medical officers) registered at Nepal Medical Council (NMC). The inclusion criteria included all the male and female doctors of specialty obstetricians and gynaecologists (OBGYN), general practitioners (GP), internists and medical officers (MO) registered at NMC. Data was collected after ethical approval. Those not willing to sign an informed consent were excluded from the study. Convenient sampling method was used for data collection and sample size was calculated as 188.31 in the formula $(Z^2 \times pq)/d^2$ where $p=0.857^1$; $q=1-p$; d =margin of error = 0.05.

The questionnaire survey items were derived from previous studies.^{1,2} The data was entered in Microsoft Excel and analysed using SPSS version 17.0. The

level of significance was set at 0.05 and confidence interval at 95%.

RESULT

The study was conducted among 190 antenatal care providers (Male 126, 66.3%; Female 64, 33.7%). Age of the participants varied from 26 years to 61 years (31.79 ± 6.09). The work experience of the doctors in antenatal care ranged from minimum of 1 year to a maximum of 31 years (3.16 ± 4.41). The distribution of profession has been depicted in Figure 1. The knowledge of effect of poor health on adverse pregnancy outcomes was found to be statistically significant ($p=0.041$) with 40 (21.1%) OBGYN participants answering correctly (Table 1). Other questions regarding the pregnancy and oral health association have been presented in Table 2.

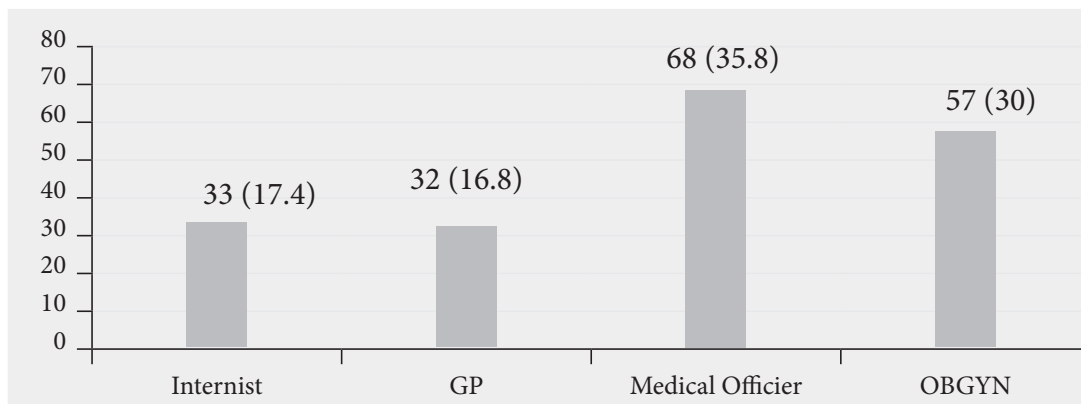


Figure 1: Distribution of participants according to profession n (%).

Table 1: Poor oral health has negative effect on pregnancy outcomes such as preeclampsia, low birth weight and preterm delivery.

Profession	Response n (%)			Total n (%)	p value
	Yes	Maybe	No		
OBGYN	40 (21.1)	5 (2.6)	12 (6.3)	57 (30)	0.041 (Sig.)
GP	22 (11.6)	7 (3.7)	3 (1.6)	32 (16.8)	
Internist	19 (10)	4 (2.1)	10 (5.3)	33 (17.4)	
Medical Officer	34 (17.9)	19 (10)	15 (7.9)	68 (35.8)	
Total n (%)	115 (60.5)	35 (18.4)	40 (21.1)		

Chi-square test

Table 2: Questions and responses to pregnancy and oral health association.

Questions	Yes n (%)	Maybe n (%)	No n (%)
Oral health should be part of prenatal care?	110 (57.9)	-	80 (42.1)
Should periodic oral examination of pregnant women be done on regular basis?	59 (31.1)	123 (64.7)	8 (4.2)
Is there lack of time for prenatal oral health counselling?	69 (36.3)	-	121 (63.7)
You do not refer pregnant women to dentist due to cost factor.	105 (55.3)	-	85 (44.7)

DISCUSSION

Pregnancy complications such as low birth weight, preeclampsia and preterm delivery can affect the overall health of an individual. Oral diseases are common problems affecting mankind. Oral care during pregnancy is an important aspect of ANC. Hormonal changes during pregnancy can put women at risk of suffering from various oral diseases such as gum bleeding and inflammation.³ Poor maternal oral status has often been associated with adverse pregnancy outcomes.^{4,5} Misconceptions surrounding oral health during pregnancy by both doctors as well as pregnant women may be contributing to the problem.⁶ Unfortunately, pregnant women and their ANC providers are not always aware of the implications of poor oral health and rarely visit dentist during pregnancy.⁷⁻⁹

In the current study, OBGYN doctors had better perception of poor maternal oral health compared to other ANC providers. Among the doctors, 115 (60.5%) agreed that tooth-gum problems could affect the pregnancy outcomes. This is in agreement with George et al (2012)⁶ Though 110 (57.9%) of doctors agreed that oral health should be part of antenatal care, only 59 (31.1%) of the doctors were positive about periodic oral examination of pregnant women

on a regular basis. This was similar to previous studies.^{2, 6, 9, 10} One of the reasons for this could be the lack of adequate information that most regular dental treatments are safe during pregnancy.^{11, 12} Many doctors think that dental procedures could be unsafe during pregnancy.

Many doctors 69 (36.3%) believed that there was lack of time for antenatal oral health counseling. Other studies have also reported similar findings.^{6, 9} This results delaying the dental treatment beyond the safest period for treatment, the second trimester.¹¹ About half the doctors 105 (55.3%) thought cost to be factor that prevented them in advising patients for dental check-ups. Timely made dental appointments can actually reduce the cost to minimum. Thus, maintaining oral health is vital during pregnancy.

CONCLUSION

The obstetricians and gynaecologists had better understanding of poor oral health affecting pregnancy outcomes adversely compared to other antenatal care providers. It is recommended that the knowledge regarding antenatal care be improved among all health care professionals.

JNDA

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