Oral health during pregnancy: A study from women with pregnancy

Madam,

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."[1] Oral health is essential to the health and well-being of both the pregnant mother and her baby.[2] The Pregnancy Risk Assessment Monitoring System reported that just 23-43% of the pregnant women receive dental care during pregnancy. The rate is a half to two-thirds of the pregnant in the united states (67%).[3] There is an id a significant differences among the women during pregnancy and after delivery; concerning the gingival condition also it was observed that existing gingival problems are aggravated during pregnancy.[4]

Based on the clinical observations, the prevalence of periodontal diseases (PD) during pregnancy varies from 20% in some studies to 100% in others.[5,6] Despite a general reduction in dental caries in all ages,[7] studies show that it remains high during pregnancy and approximately 40-90% of the pregnant women suffer from dental caries in developing countries.[8] Therefore, this study aim at describing the dental caries status among the Iranian pregnant women.

A cross-sectional study was carried out on 340 Iranian pregnant women living in Arak in 2011. The multi-stage sampling technique was used. Subjects were randomly, selected in 15 health centers and a questionnaire were distributed among them. In this study, the pregnant women without systematic disease such as diabetes or progressive oral diseases were included. The subjects' knowledge level, oral health behavior, decay, missing, and filling teeth (DMFT) and plaque index (PI) and prevalence of PD were recorded. The criteria for periodontal diagnosis was presence of four or more teeth showing at least 4 mm of probing pocket depth in one side and clinical attachment loss at the same site, with bleeding on probing.[9] Then, statistical data analysis was performed using software SPSS (version 16). Moreover, multiple logistic regression analysis was applied to predict individual characteristics effect on obtaining dental care during pregnancy.

The average age of the samples was 28.2 ± 3.7 years and their mean knowledge score about the oral health was 43.2 ± 9.8. In this study, 48% of the women were perfectly aware of the fluoride role in caries prevention, while 37% of them were not. Regarding the main factors involved in caries they announced microbial activity (17%), sweet stuff consumption (40%) and lack of hygiene (43%). The mean DMFT was 5.4 ± 2.83 (2.9, 5.6 and 5.9 for 21-25, 26-30 and 31-35-year-olds groups, respectively).

A one way ANOVA test showed that the age has a significant effect on the DMFT value. Furthermore, the follow-up Tuky-test showed that increase of the average age lead to the DMFT value increase ($P < 0.001$). There was a significant positive correlations between the age and DMFT ($r = 0.44$), decay teeth (DT) ($r = 0.36$), and filling teeth (FT) scores ($r = 0.41$). Prevalence of subjects with DT > 5 was higher in women with low-income families (odds ratio (OR) 1.84, 95% CI, 1.35-2.14). In this study, the mean of PI was 76%. Higher PI was associated with the higher DT amount. PI among the women with academic education was lower than that among those with primary education (58% vs. 83%), ($P < 0.001$). There was a significant relation between the plaque cumulates on the teeth and oral health care ($P < 0.001$). The prevalence of PD was 24% ($N = 84$), so that the samples reported one or more gingival symptoms during pregnancy such as bleeding gums when brushing the teeth (4%), spontaneous gums bleeding (1%), gums pain (8%), change of the gum color (4%) or swollen gums (7%).

The prevalence of PD significantly associated with higher gestational age. The recorded plaque amount and the bleeding on probing indexes were significantly higher in mothers group with PD.

The multiple logistic regression revealed that demographic variables (age mother, gestational age, insurance coverage, education level, family income, tooth brushing and dental flossing) predict totally 42.2% of the oral health care variance among the pregnant women.

The present study indicates that the oral health status is not appropriate among the pregnant women. On the other hand, the high prevalence of dental plaque, poor periodontal condition and unsatisfied treatment require a preventive population based strategy with an emphasis on the improvement of the oral self-care for the pregnant women.

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