PREMIO G. CARDAROPOLI 2023

HIGH PREVALENCE AND SEVERITY OF PERIODONTAL DISEASE IN THE REFUGEE POPULATION LIVING IN CAMPS AND THE HOST COMMUNITY IN BANGLADESH: A CROSS-SECTIONAL STUDY

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Approximately, one million Rohingya refugees live in the camps in Bangladesh. Bangladesh is a lower-middle income country that faces significant challenges to the health system. In populations and countries with low availability of dental care and limited dental health awareness, and preventive measures, the prevalence of severe periodontitis is 12% with 328 million people affected. Considering the global burden of oral disease, which is higher in low-income and middle-income countries, there is an urgent need to identify and implement effective and evidence-based oral health strategies in. To the best of our knowledge there is no literature on the prevalence of periodontal disease in the Rohingya refugees in Bangladesh and comparing this to the host community.

The aim of this study was to assess the prevalence and severity of periodontal disease in the Rohingya refugees living in camps and the host community in Cox's Bazar, Bangladesh.

There was no existing literature on the prevalence of periodontal disease in the Rohingya refugees therefore an unpublished pilot was conducted. Two stage cluster sampling method was used to select 50 participants from refugees and 50 from the host community. A questionnaire was completed which included questions on gender, age, education level, employment status, oral hygiene habits, tobacco and betel nut consumption, utilisation of medical and dental services, and last dental visit. The height and weight

were recorded. The following clinical data were recorded: number of teeth present, full mouth periodontal probing depth (PPD), bleeding on probing, and recession at six sites per tooth, and mobility.

Frequencies and percentages were used to classify and explain all variables. The chi-square test was performed to investigate the bivariate relationship between categorical variables, and logistic regression models were fitted to identify factors associated with outcomes.

The mean age of the sample was 44 years. Most of the refugees (n=25) and host community (n=34) had no formal education. A larger proportion of the refugees were current smokers (n=22) compared to the host (n=11). Most of the refugees (n=47) and host (n=41) were current users of betel nut.

Only five out of 50 participants in the host community and none among refugees were defined as having periodontal health. Worse periodontal conditions were detected in the refugees compared with the host community, with respect to diagnosis based on the current World Workshop (WW) definition (p=0.039), Centers for Disease Control and Prevention and American Academy of Periodontology classification (p=0.008) and mean PPD (p=0.028). Adjusted for known confounders, severity of periodontitis (WW) was associated with refugee status (p=.007), education (p<.001) and age (p=.023); mean PPD was associated with refugee status (p<.001), age (p<.001) education (p <.001) and frequency of cleaning teeth (p= .002).

Prevalence of periodontitis was very high in both the refugees and host community. However, the severity of periodontal disease was worse in the Rohingya refugees compared with the host population in Bangladesh. Refugee status, education and age may affect severity of periodontal disease. In response to the population needs of the Rohingya refugees living in camps and the host community, a package of evidence-based and cost-effective essential oral health interventions will need to be delivered to cover preventive and curative services.

Key-words: Periodontitis; Refugees; Public Health