Objective: Extensive exploration of the literature reveals lack of studies conducted to assess the microbial contamination of toothbrush among smokers, non-smokers and patients on nicotine replacement therapy.

Hence, this study was conducted to assess the microbial load and colonization among the smokers, non-smokers and patients on nicotine replacement therapy.

Result: It was seen that the toothbrushes of smokers harboured more microorganisms and in larger quantity as compared to smokers. The toothbrushes of patients using nicotine chewing gums harbored microorganisms in much lesser number as compared to smokers.

Conclusion: It can be concluded that the smokers exhibit more pathogenic and extensive microbial load and patients on NRT are at a comparable risk for diseases as non-smokers. And NRT does not pose any harm to the patient.