Dentine hypersensitivity (DH) has initial symptoms of sharp pain of rapid onset that disappears once the stimulus is removed. The initiation and progression of dentine hypersensitivity are reported to be influenced by the characteristics of the teeth and periodontium with the oral environment and external influences. The aggravating stimuli are tactile, thermal and chemical or osmotic. The pain of DH although uncomfortable, it is most often a temporary and sustainable problem and occasionally the pain may become chronic persisting for months or years. The Cumulative Hypersensitivity Index (CHI) for denture hypersensitivity severity was validated by Olley et al. (year of publication) to indicate DH severity per subject which may help to investigate the prevalence, aetiology and management of this condition. Olley et al. (year) used the existing diagnostic criteria of Schiff index by combining the results from the teeth into an overall subject sextant score. The CHI was used in this study to investigate the severity of DH in Nigerian subjects with a view of proposing the need for its prevention and or management.

This national survey is aimed to evaluate the cumulative severity of dentine hypersensitivity (DH) in Nigerians.

One thousand three hundred and forty-nine urban and rural Nigerian dwellers aged 18-35 years were studied within a six-month period after obtaining institutional ethics approval. The subjects were recruited from dental hospitals in eight states that were randomly selected from the thirty-six states in Nigeria. Self-administered questionnaire evaluated subject’s demography, settlement and brushing technique. Schiff index Scores were collected and percentages calculated. Gingival recession (GR) was measured with CPITN probe. Cumulative Hypersensitivity Index (CHI) Score and the highest Schiff Index Score were recorded per subject. Spearman correlation Coefficients (P-value) were used to assess the relationship between CHI Scores, Schiff Index percentages and Schiff Index highest per subject.

There was statistical significance (correlation?) between CHI, gender, tooth brushing technique and GR (P<0.001) but there was no statistical significance (correlation?) between CHI, age, settlement and type of hand used in brushing (p>0.001). Percentage highest CHI was 18.8% and Schiff score was 35.4%. 26.5% of the respondents had GR greater than 1mm and the overall mean GR was 1.00 ± 1.32. The percentage of urban dwellers was 54.2% while 51.3% were rural dwellers. The overall mean Schiff score was 0.54 ± 0.88 while the overall mean CHI was 1.51 ± 2.95.

DH is severe in Nigerians and the relationship between this severity, gender and tooth brushing technique is strong. There is a need for the prevention and management of DH in Nigeria.