

Knowledge and Perception of Dentinal Hypersensitivity and Its Associated Factors among Dental Resident Doctors in University of Benin Teaching Hospital (UBTH)

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Dentin hypersensitivity (DH) is described as a short sharp pain arising from an exposed dentin, to evaporative, thermal, tactile, osmotic or chemical stimuli and that cannot be ascribed to any other dental defect or disease.¹ It is elicited when dentine is exposed to tactile thermal or evaporative stimuli. Dentists in Nigeria usually pay poor credence to Dentinal Hypersensitivity and rank it low among the list of conditions they manage in terms of severity.² However, Dentinal hypersensitivity affects the sufferer with varying levels of discomfort ranging from pain elicited while eating to difficulty in breathing.

With a prevalence rate in some populations as high as 74%,³ the knowledge and information about management of this condition is important for all dentists in Nigeria.

Dental resident doctors in the University of Benin Teaching Hospital were sampled. Data was collected using an online Google form (self-administered) It was distributed among dental resident doctors of various specialties in the University of Benin

Teaching Hospital. Information collected was analyzed using SPSS (Statistical Package for Social Sciences, release 17 for Windows®) version 21

Out of the 86 dentists who received the questionnaire and a reminder, 52 returned (61.5%) properly filled forms. Of these, 31 were from males and 21 from females. The mean age of the whole sample was 34 years with a minimum of 30 years and a maximum of 45 years. There were no significant differences with respect to age in the whole sample when subjects are grouped according to gender.

About 93.9% of the participants had an accurate understanding of the characteristics of pain related to Dentinal Hypersensitivity (Figure 1).

A majority of dentists (75.8%) reported thermal (cold) stimuli as the main trigger of dentine hypersensitivity with another 15.2% reporting chemical (sweet) stimuli as the main trigger (Figure 2). Mechanical stimulus was not evoked by any of them. Also, many responders stated that the most accepted theory of dentine hypersensitivity is the

hydrodynamic theory (75%), with 21.9% choosing the odontoblastic transduction theory (Figure 3).

Regarding diagnostic technique, it appears from the response received that 81.8% use mechanical stimuli (air flow and probing) to elicit Dental Hypersensitivity pain with 66.7% implementing systematic screening for this condition during routine examination of their patients.

In terms of differential diagnosis, 93.8% of the residents acknowledge implicitly the idea of differential diagnosis when faced with other tooth pain. In particular, both irreversible and reversible pulpitis and periodontal pain are pathological condition reported by the surveyed practitioners to evoke Dental Hypersensitivity.

Preventive measures are advised by 93.7%. These included risk factor elimination, avoidance of acidic diet, frequent/inadequate brushing and brushing soon after meals, while 6.3% offered no preventive measures.

With respect to management procedures, the use of desensitizing tooth paste is the mostly chosen option followed by professional topical fluoride application (PTFA), use of varnish and adhesives (Figure 4). 3% have used root canal treatment to manage Dental Hypersensitivity. Mucogingival surgery was not mentioned as a method of treating dental hypersensitivity.

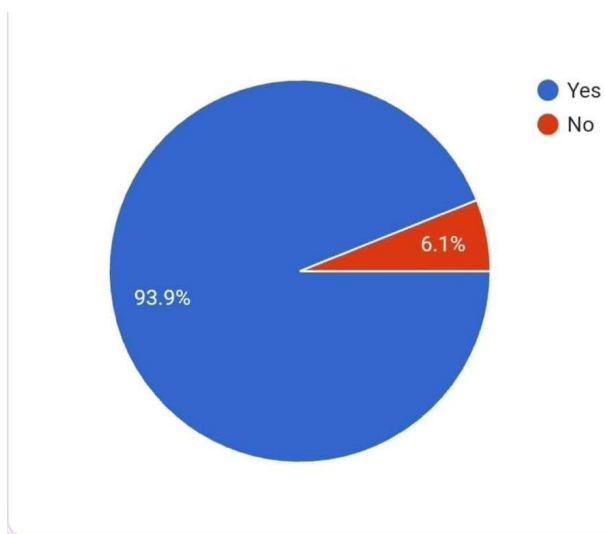


Figure 1: Respondents who have treated dental hypersensitivity

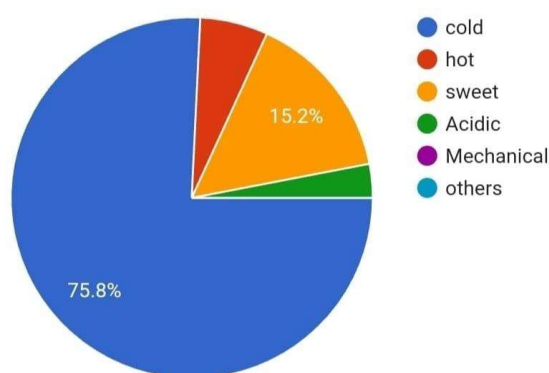


Figure 2: Perceived causes of dental hypersensitivity among the respondents

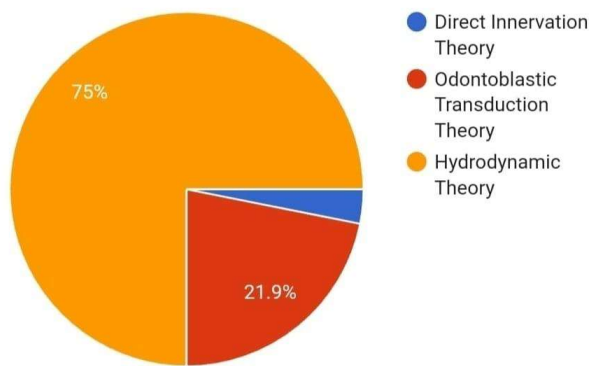


Figure 3: Perceived theories behind dentinal hypersensitivity among the respondents

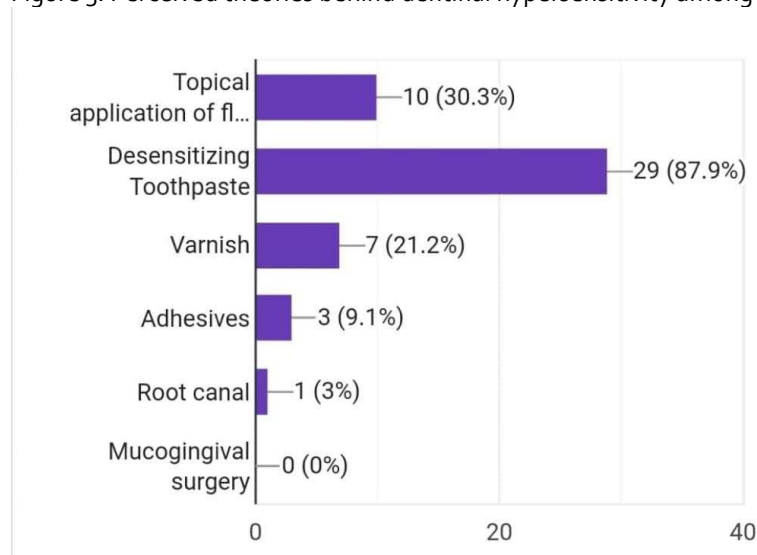


Figure 4: Treatments offered by the respondents for dentinal hypersensitivity

Dentinal hypersensitivity is a common complaint among patients that visit dental clinics and is usually described as a short sharp pain. It is therefore important for any dentist to have thorough understanding of its features, initiating factors and management options. This survey was undertaken with the aim of assessing the UBTH dental resident doctor's knowledge on this condition.

From the questionnaire it was possible to infer that the majority of them (93.9%) have an accurate understanding of the features of the pain associated with dentinal hypersensitivity.

The results of the present study indicate that 91.0% of the surveyed dentists identified thermal (cold) and chemical (sweet) as main triggering factors for Dentine Hypersensitivity.

Systematic screening for Dentine hypersensitivity during routine clinical examination is carried out by 66.7% of the dentists included in this study which is in line with the findings of 78.1% of the surveyed dentists suggesting preventive measures against Dentine Hypersensitivity with risk factor elimination as main recommendations to patients.

The result of the survey also shows that use of desensitizing toothpaste is a predominant choice of treatment modality among the dental residents.

The following conclusions are reached as a result of this study:

The majority of the dental residents in the University of Benin Teaching hospital are well informed about the features of pain associated with Dentine hypersensitivity as well as having adequate

knowledge concerning its triggering factors and theory explaining the tooth sensitivity

Most of the responders demonstrate enough skills to diagnose, prevent and manage efficiently Dentine Hypersensitivity.

Keywords: Dentine hypersensitivity, knowledge, management

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