

## ABSTRACT

Dental anxiety has always been one of the most common psychological conditions in the provision of dental care and it is a phenomenon that has from time immemorial contributed to the stereotyping dentists as “painful drillers and fillers of teeth”. Many studies have been conducted internationally to explore dental anxiety, its causes, prevalence, and consequences and some studies have even investigated its impact on the use of dental services and oral health status. However, in the Sri Lankan context dental anxiety has been least focused on. Therefore the aim of this study is to describe the prevalence of dental anxiety in a Sri Lankan population and its association with the treatment seeking behaviours, oral health status and oral health impact. And further to describe the dental surgeons’ knowledge on dental anxiety, attitudes towards dentally anxious patients and practices adopted in managing them. This study comprised of three main components;

- (1). Selection and validation of dental anxiety measuring tool
- (2). A community based descriptive cross-sectional study
- (3). A survey on dental surgeons

DFS and MDAS were selected as a suitable anxiety measuring tool and validated after translated with cultural adaptation into Sinhala and Tamil languages. A validation study was conducted among patients within the age of 20-44 yrs attending the dental centers/clinics at the Air Force Bases of Ratmalana and Katunayake. Total of 105 participants were included in the study and their mean age was 29.82 years. The mean (SD) score for the MDAS was 9.85 (4.45) and median was 9.00. The overall mean (SD) for the DFS was 33.72 (14.44) and median was 27.00. Face and content validity was satisfactory and with ROC analysis the cut off points for DFS (40) and MDAS (12) were decided. Construct validity was in a moderate level although the correlations were significant. Reliability of the two scales were high (IC; DFS=0.956 & MDAS=0.897). Test- retest reliability also showed a high level of agreement (Kappa; DFS=0.877 & MDAS=0.788).

To measure dental anxiety in a Sri Lankan population a cross sectional descriptive study was conducted in the district of Kalutara among 20-44 years adults. Seven hundred subjects were selected by multistage, stratified, probability proportionate to size sampling and data were gathered by self administered questionnaire (including DFS and MDAS) and oral examination. Prevalence of dental anxiety is 39% and 32% for MDAS and DFS respectively. Females scored more in dental anxiety measures than males. Dental anxiety was significantly

associated ( $p < 0.05$ ) with factors such as age, gender and educational level. No significant difference was found between dental anxiety and sector or income level. Participants who received invasive type of treatment (65%) associated significantly ( $p < 0.05$ ) with dental anxiety. Dentally anxious subjects had significantly fewer filled teeth and higher OHIP mean score than the non anxious.

The final component was based on a survey conducted on dental surgeons working in the Western province to describe the dental surgeons' knowledge on dental anxiety, attitudes towards dentally anxious patients and practices adopted in managing patients with dental anxiety. Total of 480 dental surgeons were mailed a self administered questionnaire and nearly 30% (142) had responded. This component revealed that the use of pre-treatment anxiety assessment questionnaires was low (4%) and were more confident on behavioural diagnosis (49%). Considering the management of dentally anxious the widely used strategy was the behavioural management (more than 60%).

In conclusion DFS and MDAS are reliable and valid scales for measurement of dental anxiety in Sri Lanka. However, further research on DFS and MDAS in a specific population groups to determine the group specific norms and future research on this subject is recommended. This study revealed the requirement for including subjects and practicals on proper management of dentally anxious patients in par with the latest methods in undergraduate and postgraduate levels of the dental education in Sri Lanka. Finally, dental anxiety is to be identified as a barrier for service utilisation and therefore planning and implementing proper national and private sector programme is recommended.