

Enhanced Magnification in Restorative Dentistry: Opinion of a Population of Nigerian Restorative Dentists

* Joan E ENABULELE, *Ayamma U. UMANAH

**Department of Restorative Dentistry,
University of Benin, Benin City, Edo
State, Nigeria.*

***Department of Restorative Dentistry,
University of Port-Harcourt, Rivers State,
Nigeria.*

*Correspondence
Dr. J.E. Enabulele
Department of Restorative Dentistry
University of Benin
Benin City, Edo State
Email: emien.enabulele@uniben.edu*

ABSTRACT

Citation: Enabulele JE, Umanah AU (2024). Enhanced magnification in Restorative Dentistry: Opinion of a population of Nigerian Restorative Dentists. Nig J Dent Sci; 7(1):c3-c4.

INTRODUCTION

The practice of restorative dentistry requires good perceptual and visual skills. Due to the restricted operating field, it is difficult to obtain direct vision (Petromilli et al., 2018), hence numerous strategies have been adopted to improve visualisation and treatment outcome. The use of magnification devices has been proven to be important in restorative and endodontic treatment (Del Fabbro et al., 2015; Mamoun, 2016) procedures by dentist of any age. However, there still exists a fair amount of resistance among restorative dentists with regards to the value of magnification and its incorporation into their dental practice. The objective of the study was to determine the opinion of restorative dentists in Nigeria with regards to use of magnification in restorative dentistry and barriers to its use.

METHODS

This was a questionnaire based cross-sectional study of registered members of the Nigeria Society of Restorative Dentistry. Link to the electronic questionnaire was sent to members and only those who gave informed consent participated in the study.

The questionnaire elicited information on the sociodemographic characteristics of the participants, level of awareness regarding use of magnification devices, knowledge of possible benefits of magnification in restorative dentistry, use of magnification devices and barriers to the use of magnification devices among the respondents.

RESULTS

A total of 118 restorative dentists were sent links to the study questionnaire, at the end of 10 weeks 82 responses were received. The respondents were made up of 61.0% males and 39.0% females with majority (86.6%) married. Consultants made up 42.7% of the respondents while 28.0% were senior residents. Almost all (98.8%) of the respondents were aware that magnification devices can be used in restorative dentistry with the most prevalent source of awareness being postgraduate training (81.75%). Majority (75.1%) of the respondents were aware of the different types of magnification systems that can be used in Restorative Dentistry with the most common magnification device reported being dental loupes (96.3%) and operating microscope (85.4%). With regards to when

magnification devices should be used, 36.6% stated that they should be used routinely, 24.4% reported it should be used for all procedures while 8.5% opined that it should be used for endodontic procedures only (Figure 1). The most prevalent need for magnification devices was reported to be for detection of cracks in dentin (95.1%), followed by facilitating visualization during surgical endodontic procedures (95.1%) and non-surgical endodontic procedures (90.2%). More than half (54.9%) reported using one form of magnification device or the other. Majority (73.3%) of those who reported use of magnification devices stated that they used the devices sometimes, while 20.0% and 6.7% rarely use and always use respectively. The most frequently used magnification device by the respondents was dental loupes (95.5%). Less than two-thirds (64.6%) of the respondents opined that use of magnification devices be enforced or made mandatory in restorative dentistry while 35.4% did not think so.

Majority (90.2%) of the respondents were of the opinion that all fully registered dentists, house officers and dental students should use magnification devices in Restorative dentistry. A few (2.4%) felt only consultants should use magnification devices. With regards to when magnification devices should be used, 36.6% stated that they should be used routinely, 24.4% reported it should be used for all procedures while 8.5% opined that it should be used for endodontic procedures only. The most prevalent reasons for non-use of magnification devices adduced were: The devices are expensive (75.6%), The devices are not readily available (69.5%) and Use of the device requires training (57.3%). there was no statistically significant association between age group, gender, subspecialty, status and years of practice and use of magnification devices in respondents' clinical restorative practice

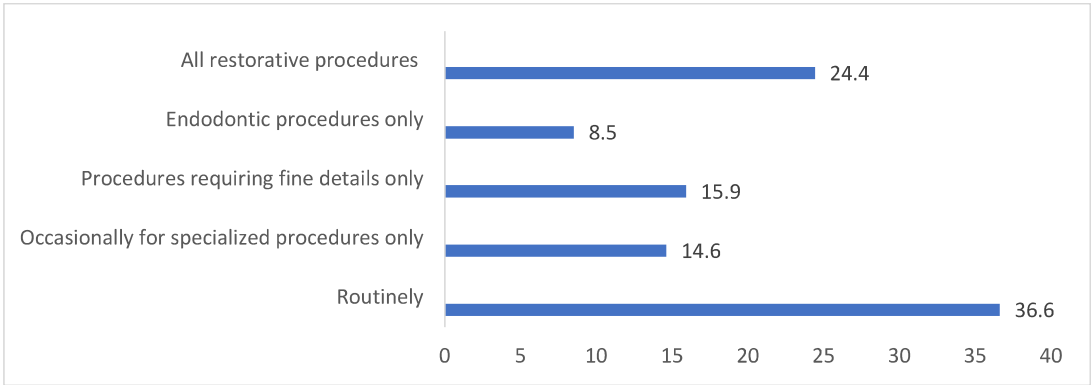


Figure 1: Opinion of respondents regarding when magnification devices should be used

CONCLUSION

Awareness on the need for use of magnification devices in restorative dentistry is high with dental loupes being the most frequently used device. However, routine use of these devices is low due to the cost, availability and lack of training in use of these devices.

REFERENCES

Del Fabbro M, Taschieri S, Lodi G, Banfi G, Weinstein RL (2015). Magnification devices for

endodontic therapy. *Cochrane Database Syst Rev*; 12: CD005969.

Mamoun JS (2016) The maxillary molar endodontic access opening: A microscope-based approach. *Eur J Dent*; 10: 439-446.

Petromilli P, Wajngarten D, Garcia NS (2018). Expanding the operating field in endodontics: from magnification loupes to microscope. *Dent Oral Biol Craniofac Res*; 1:1-4.