



RAGAS DENTAL COLLEGE & HOSPITAL

(Unit of Ragas Educational Society)
 Recognized by the Dental Council of India, New Delhi
 Affiliated to The Tamilnadu Dr. M.G.R. Medical University, Chennai
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7.2 Best Practices

7.2.1 Describe two Institutional Best Practices as per the NAAC format provided in the Manual

Response:

Best Practice 1:	Best Practice : 2
Title of the Practice	Title of the Practice
Minimally Invasive surgical Techniques in Periodontics	Disable Aided Dentistry (DAD)
Objectives of the Practice	Objectives of the Practice
Minimally invasive surgery offers newer insights into the management of periodontal diseases resulting in visibly perceived advantages to both the clinician and patient.	<ul style="list-style-type: none"> • To increase the access to dental care services by designing a new dental chair which would accommodate both wheelchair bound patients and general population • To assess the level of comfort and satisfaction in using the newly designed dental chair.
Microsurgery incorporates the following important principles	The Context:
<ol style="list-style-type: none"> 1. Improvement of motor skills thereby enhancing surgical ability 2. Passive wound closure with exact primary opposition of the wound edge. 3. The application of microsurgical instrumentation and suturing to reduce trauma. 	<p>As per Census 2011, in India, out of the 121 Cr population, about 2.68 Cr persons are 'disabled' which is 2.21% of the total population. Our interaction with this population dates back to 2008 where we established a satellite centre at the National Institute of Persons with Multiple Disability (NIEPMD), a tertiary care government centre for multiple disabilities build according to the norms of disable friendly environment proposed by GoI in 2016. The barriers in utilising the dental services were analysed using a mixed method research among these people .</p>
The Context:	
Gaining microsurgical experience in a newly	



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established unit is challenging. It establishes the need for a clear learning curve which eventually leads significant improvement over time. Training with the microscope enhances the motor skills, which can translate to improved surgical skills.

The Practice:

With the advent of advances in the surgical technologies in Periodontics, microsurgical approach in managing soft tissue discrepancies of the periodontium has gained importance in the recent years owing to its primary advantages of being minimally invasive. Technology has advanced in leaps and bounds to enable access and visualization of the operating site with lesser trauma to the adjacent uninvolved tissues This is because of the magnification offered either by surgical loupes or operating microscope which enables gentle handling of tissues and precise approximation of the surgical wound margins facilitating / achieving better healing and hence successful treatment outcomes. Our postgraduate students are trained in using the surgical microscope which resulted in more precise periodontal surgical procedures with less operative trauma and improved healing.

Evidence of success:

Microsurgery is mostly applied for soft tissue augmentation in gingival recession or ridge defects. As evidence to it, we have performed a dissertation study in our department assessing the clinical efficacy of microsurgically performed CAF which does not require a second surgical site and compared it with a gold standard CTG performed

The Practice:

The modified dental chair was constructed with an idea that it could be used by both general as well as wheelchair bound patients where these patients can be treated while remaining in their wheelchair without any transfer. In addition, our students are trained on how to manage and treat patients with multiple disabilities particularly wheel chair bound patients using this modified dental chair without any hesitation.

Key Implementors and Collaborators of the Practice

Dental team (Public Health Dentistry Department, Ragas Dental College)	Problem identification Designing and patenting the DAD chair Pilot testing of the product
Problem identification Designing and patenting the DAD chair Pilot testing of the product	Manufacturing the DAD chair
NIEPMD	Input towards the design of DAD chair Installation of the DAD chair at their centre. Pilot testing of the project

Resources Of The Project:

This was the result of collaboration of public health dental doctors, prosthetic lab workers, occupational therapist, Psychologist, parents and caregivers of the different abled population who provided their valuable thought to the development of DAD chair. It was a self-



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macroscopically. The study concluded that the primary outcome measure after microsurgical approach was comparable to the macroscopically performed technique. The results showed that magnification offered by the operating microscope provided better visual acuity, atraumatic flap management, less post operative discomfort and greater acceptance by the patients. The dissertation has been submitted in the University and have been approved.

The microsurgical approach has also been applied to other periodontal defects such as intrabony defects and we have obtained promising results in terms of reduction in probing depth and gain in clinical attachment levels apart from good patient centric outcomes.

Problems Encountered and Resources Required:

Access to high quality equipment is very limited due to prohibitively high costs and distribution difficulties. This is particularly applicable to highly specialized microsurgical instruments and disposables such as sutures. This warrants the need for proper storage and maintenance of the equipments and instruments

funded project.

The uniqueness of the practice is that the existing modified dental chair including Versatilt and Diaco companies are exclusive for wheelchair patients, but no dental unit that allows both general and wheelchair bound patient is available and the one that we have developed can be considered to be the first of its kind in the world which accommodates both general and wheelchair bound patients.

Evidence of Success:

The description of the chair was published in the journal "DISABILITY AND REHABILITATION: ASSISTIVE TECHNOLOGY". A pilot study was conducted using a pre tested satisfaction proforma which yielded a satisfactory and comfortable response from both differently abled and general population. The results of this study was presented at IAPHD national convention at Maulana Azad Dental College during June 2019 and won the best poster award.

Problems Encountered and Resources Required:

Although a chair in which the wheelchair patient could remain seated for dental treatment has been reported, it occupied a large space even when it was installed on one side of a shared spittoon with a unit for general patients on the other side, making it impractical to install in the clinics of general dental practitioners. Also, the chair had higher cost than the regular dental chair available in markets in India. In order to combat this situation, we have endeavoured to design a dental chair in which both patients in



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	wheelchairs and general patients could be treated.
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