

RANJEET DESHMUKH DENTAL COLLEGE AND RESEARCH CENTRE, NAGPUR

LIST OF ONGOING RESEARCH PROJECTS (2024-25)

PERIODONTICS & IMPLANTOLOGY

SR.NO.	PRINCIPAL INVESTIGATOR	CO-INVESTIGATOR	TITLE	IEC NUMBER
1.	Dr. Surekha Rathod	Dr. Pranjali Bawankar	Evaluation of effect of Syzygium cumini & orange peel mouthwash on periodontal health in type 2 Diabetes Mellitus Patients – A Randomize Controlled Trial	IEC/RDDC&RC/STAFF/Periodontics/99/2025
2.	Kashish kewlani	Dr.Abhay Kolte Dr.Pranjali Bawankar	Evaluation of Anti-inflammatory properties of novel herbal insitu gel contining Ashwagandha and Aloe vera extracts and its influence on oxidative stress regulation and wound healing	IEC/RDDC&RC/UG/Periodontics/108/2025
3.	Queeni Mahendra Khakse	Dr. Pranjali Bawankar	Evaluation of Anti Inflammatory Properties of novel Vitamin D3 IN SITU gel and its influence on oxidative stress regulation and wound healing; An invitro study.	IEC/RDDC&RC/UG/Periodontics/103/2025
4.	Ankita Kewate	Dr. Abhay Kolte Dr. Pranjali Bawankar	Invitro Assessment of cytotoxicity, gene expression and enzyme activity of a novel herbal insitu gel containing Ashwagandha and aloevera extracts A comprehensive Biochemical and molecular analysis.	IEC/RDDC&RC/UG/Periodontics/106/2025
5.	Kumudini Kawale	Dr. Abhay Kolte Dr.Pranjali Bawankar	Evaluation of Anti inflammatory and wound healing properties of novel herbal insitu gel containing ashwagandha and aloe vera extracts; An invitro study.	IEC/RDDC&RC/UG/Periodontics/107/2025
6.	Kunjal D. Mehta	Dr.Pranjali Bawankar	Evaluation OFD cytotoxicity, inflammatory gene expression, influence of oxidative stress modulation of novel Vitamin D3 Insitu gel.	IEC/RDDC&RC/UG/Periodontics/102/2025
7.	Vishakha S Kumbhare	Dr. Pranjali Bawankar	Invitro Assessment of cytotoxicity, gene expression and enzyme activity of novel Vitamin D3 insitu gel - A comprehensive biochemical and molecular analysis.	IEC/RDDC&RC/UG/Periodontics/103/2025
8.	Riddhishri Kedia	Dr. Pranjali Bawankar	In vitro assessment of the anti inflammatory wound	IEC/RDDC&RC/UG/Periodontics/10

			healing and enzyme modulatory effects of normal Vitamin D3 insitu gel.	5/2025
9.	Tannushree Jaiswal	Dr. Abhay Kolte	Comparative evaluation of clinical efficacy of locally delivered novel gel containing Aloe vera and Ashwagandha extract as an adjunct to non-surgical periodontal therapy: A randomized controlled trial.	IEC/RDDC&RC/UG/Periodontics/11 6/2025
10.	Sanskruti Pusdekar	Dr. Surekha Rathod	Evaluation of effect of Syzygium cumini and Orange peel mouthwash on Periodontal Health in Patients undergoing orthodontic treatment- A Randomized controlled Trial.	IEC/RDDC&RC/UG/Periodontics/11 7/2025
11.	Siddhi Bhadule	Dr. Surekha Rathod	Evaluation of anti-plaque effect of a Novel herbal chewable tablet containing orange peel and synzium cumini extract in patients undergoing orthodontic therapy: A Randomized Controlled trial.	IEC/RDDC&RC/UG/Periodontics/15 2/2025
12.	Jivida Bhujade	Dr. Pranjali Bawankar	In vitro evaluation of antimicrobial and antiplaque efficacy of a Novel herbal chewable tablet.	IEC/RDDC&RC/UG/Periodontics/15 3/2025
13.	Puniti Bohra	Dr. Neha Deshpande	Assessment of Periodontal Health Status in Patients having Hypertension with and without Smoking: An Observational Study.	IEC/RDDC&RC/Intern/Periodontics/ 185/2025
14.	Dr. Dhawal Mody		Correlation between Periodontal Soft Tissue dimensions and alveolar bone thickness in maxillary anterior teeth: A cross-sectional study.	IEC/RDDC&RC/Staff/Periodontics/1 75/2025
15.	Dr. Vrushali Lathiya		Evaluation of Microneedling-Assisted i-PRF with and without hyaluronic acid 2% for the management of anterior maxillary black triangles: A split mouth randomized controlled trial.	IEC/RDDC&RC/Staff/Periodontics/1 76/2025
16.	Dr. Surekha Rathod		Development of AI-Based Model for Detecting Diabetes and Periodontitis using Dermatoglyphic Patterns: A Cross sectional study	IEC/RDDC&RC/Staff/Periodontics/1 58/2025
17.	Abhishek Bawaskar	Dr. Vrushali Lathiya	Comparative evaluation of novel Doxycycline gel and 10% Doxycycline hyclate gel as an adjunct to scaling and root planning in Stage III Periodontitis.	IEC/RDDC&RC/Intern/Periodontics/ 160/2025
18.	Dr. Abhay Kolte		Retrospective analysis and correlation of peri-implant tissue health and PROMS in indirect sinus lift bone	IEC/RDDC&RC/Staff/Periodontics/1 77/2025

			augmentation.	
19.	Pranav Bhutada	Dr. Vinisha Bajaj	Correlation between smoking and Mandibular Bone Mineral Density: An Analytical study using Panoramic Indices.	IEC/RDDC&RC/Int/Periodontics/179/2025

PROSTHODONTICS

SR.NO.	PRINCIPAL INVESTIGATOR	CO-INVESTIGATOR	TITLE	IEC NUMBER
1.	Dr Jyoti Sharma	-	Evaluation of awareness, advancement and challenges regarding AI aided robot assisted modern surgery among young dental practitioners: A cross-sectional study.	IEC/RDDC&RC/Staff/Prosthodontics/73/2024
2.	Dr.Anita Kahar	Dr.Jayashree Joshi	Effectiveness of BOPPPS teaching model over conventional teaching- An exploratory study.	IEC/RDDC&RC/Staff/Prosthodontics/100/2024
3.	Dr. Sandeep B Khavane	Dr. Neelam Pande	Comparative evaluation of anxiety level , comfort and time taken using digital and conventional impression technique among	IEC/RDDC&RC/122/2025
4.	Mrunali Bhimte	Dr. Anushree Bhoge	Knowledge attitude and practice of dental practitioners and PG students on shade matching of anterior teeth.	IEC/RDDC&RC/Int/Prosthodontics/110/2025
5.	Anshuli Mohit Deshmukh	Dr. Jaishree Chahande	Efficacy of training module on awareness regarding allergies in dentistry amongst undergraduates: A cross-sectional Interventional study	IEC/RDDC&RC/Int/Prosthodontics/114/2025
6.	Harshal Gwalani	Dr. Jaishree Chahande	Evaluation of dental issues of Martial artist and develop a new device for performance optimization- Randomized Control Trial.	IEC/RDDC&RC/Int/Prosthodontics/125/2025
7.	Samruddhi Mahakulkar	Dr. Jaishree Chahande	Evaluation of lateral throat form in completely edentulous patients using proposed calibrated device: An In vivo study.	IEC/RDDC&RC/Int/Prosthodontics/147/2025
8.	Avani Jadhav	Dr. Jaishree Chahande	Evaluation of caries prevalence in Type I and Type II Diabetes Mellitus & Non- diabetic patients- A case control study.	IEC/RDDC&RC/Int/Prosthodontics/146/2025
9.	Vidhi Lakhwani	Dr. Jaishree	Oral health status of children and adult patients with beta	IEC/RDDC&RC/Int/Prosthodontics/14

		Chahande	thalassemia- A case control study.	9/2025
10.	Perna Mohod	Dr. Jaishree Chahande	A comprehensive assessment of oral health nutritional status and treatment needs of geriatric population of old age home of Nagpur City, India: Analytical Interventional Study.	IEC/RDDC&RC/Int/Prosthodontics/148/2025
11.	Roshani Lonare	Dr. Vijeta Gajbhiye	Assessment of knowledge and awareness of thermoplastic resin among Dentist and Dental Technician in Central India (A Questionnaire Based Survey).	IEC/RDDC&RC/Int/Prosthodontics/161/2025
12.	Ruchita Barai	Dr. Jayashree Joshi	Evaluation of oral health status, Hygiene Practices & Addictive oral habits among industrial workers: A cross-sectional study.	IEC/RDDC&RC/UG/STU/80/2024
13.	Tanishka Kurani	Dr. Jaishree Chahande	Evaluation of Oral Health Status and awareness of oral hygiene among the tribal population of Vidarbha region, Maharashtra, India- A cross-sectional study.	IEC/RDDC&RC/UG/Prosthodontics/551/2025
14.	Shrushti Lokhande	Dr. Vijeta Gajbhiye	To evaluate the impact of Oral Health Mobile applications among young adults to assess the associations with their Oral Health Status at Tertiary care Hospitals, Hingna, Nagpur: An interventional study.	IEC/RDDC&RC/UG/Prosthodontics/166/2025
15.	Sangini Jaiswal	Dr. Anita Kahar	Effect of Oral Health education, sensitization on oral health knowledge, attitude and practices among children residing in orphanages of Nagpur City- A Quasi experimental Study.	IEC/RDDC&RC/UG/Prosthodontics/165/2025
16.	Dr. Pranoti Ranit	Dr. Anuj Chandak	Knowledge, attitude and practice of ceramic laminate/ veneer among dental practitioner- A need assessment survey.	PRESENTED IEC PENDING
17.	Mirza Shuaa Hasan	Dr. Jyoti Sharma	Assessment of Dental Practitioners knowledge, Attitude and Perception of referral practices regarding physiotherapy for management of Temporo mandibular joint disorders in central India- An Observational Study.	IEC/RDDC&RC/Int/Prosthodontics/183/2025

CONSERVATIVE DENTISTRY AND ENDODONTICS

SR.NO.	PRINCIPAL INVESTIGATOR	CO-INVESTIGATOR	TITLE	IEC NUMBER
1.	Dr. Prathamesh Sawant	Dr. Chetana Makade	Assessment and evaluation of symptoms associated with cracks on teeth in patients around Nagpur City- An observational study	IEC/RDDC&RC/PG/CONSDENTISTRY/131/2025
2.	Dr. Khushi Sajnani	Dr. Mohit Gunwal	Comparative evaluation of Microleakage in three different Calcium Silicate Cement used as intra- orifice barrier in endodontically treated teeth- An invitro confocal study.	IEC/RDDC&RC/PG/CONSDENTISTRY/134/2025
3.	Dr. Abhay Wasu	Dr. Gautam Badole	Comparative evaluation of Pushout bond strength and marginal integrity of MTA and MTA Putty- An invitro study.	IEC/RDDC&RC/PG/CONSDENTISTRY/132/2025
4.	Dr. Khyati Palan	Dr. Pratima Shenoi	Assessment of salivary cortisol levels using ELISA and its correlation to patients undergoing emergency endodontic therapy: An in-vivo study.	IEC/RDDC&RC/PG/CONSDENTISTRY/135/2025
5.	Dr. Pranita Ingle	Dr. Pratima Shenoi	Comparative efficacy of Dual-Volume Intracanal Cryotherapy on pain after single visit root canal treatment.	IEC/RDDC&RC/PG/CONSDENTISTRY/01/2025
6.	Dr. Bhumika Vaswani	Dr. Pratima Shenoi	Comparative Evaluation of Dentinal Cracks and Instrument fracture in Pro-taper, EndoStar Re Endo, and Re Treaty Retreatment files- A Pilot Study	IEC/RDDC&RC/PG/CONSDENTISTRY/133/2025
7.	Dr. Pratik Badge	Dr. Rajesh Kubde	Comparative evaluation of efficacy of smear layer removal by 17% EDTA, 5.25% NaOCl, Triphala and green Tea as final irrigants- An In vitro study.	IEC/RDDC&RC/PG/CONSDENTISTRY/130/2025
8.	Aarya Zalke	Dr. Shriya Shahu	Awareness of possible oral health implications of lipstick and their usage pattern among women in the Vidarbha Region: A cross-sectional questionnaire study.	IEC/RDDC&RC/UG/CONS/163/2025
9.	Tanya Nandagawali	Dr. Pratik Burad	A cross-sectional survey among dental practitioners for assessing the impact of conventional and modern methods on the surface texture and esthetics of various dental restorations in individuals of Central India Region.	IEC/RDDC&RC/UG/CONS/171/2025
10.	Rujvi Pimple	Dr. Chetana Makade	Comparative evaluation of Dental erosion factors and salivary factors in dental and medical students of	IEC/RDDC&RC/UG/CONS/164/2025

			VSPMAHE: A cross-sectional study.	
11.	Dr. Sunayna Bidave	Dr. Vandana Kokane	Comparative evaluation of Injection pain during administration of local anesthesia after topical anesthetic gel versus cryotherapy application.	IEC/RDDCRC/PG/CONS/184/2025
12.	Dr. Shefali Giri	Dr. Gautam Badole	Comparative evaluation of the effect of dentin pre-treatment using pomegranate peel extract and apple cider vinegar on sheer bond strength of universal adhesive system after total etch technique: An invitro study	IEC/RDDCRC/PG/CONS/188/2025
13.	Dr. Bhumika Vaswani	Dr. Pratima Sheno	From ocean to enamel: Analyzing remineralising potential of mussel bio-adhesives and Nacre on Demineralized Enamel	IEC/RDDCRC/PG/CONS/187/2025
14.	Dr. Jayendra Desai	Dr. Rajesh Kubde	Comparative evaluation of the effect of sodium hypochlorite, EDTA and HEDP Solutions on the cyclic Fatigue Resistance of Heat treated Rotary NiTi File System: An In Vitro Study.	IEC/RDDCRC/PG/CONS/178/2025
15.	Dr. Shefali Giri	Dr. Gautam Badole	Comparative evaluation of the effect of dentin pre-treatment using pomegranate peel extract and apple cider vinegar on sheer bond strength of universal adhesive system after total etch technique: An invitro study	IEC/EDDCRC/PG/CONS/188/2025
16.	Tanvi Pote	Dr. Shriya Shahu	Awareness of recent trends and factor influencing clinical decision making towards vital pulp therapy in carious permanent teeth amongst dental interns in central India: A cross sectional survey	IEC/EDDCRC/INTERN/CONS/186/2025

ORAL PATHOLOGY

SR.NO.	PRINCIPAL INVESTIGATOR	CO-INVESTIGATOR	TITLE	IEC NUMBER
1.	Dr. Ashish Bodhade		Epigenetic Profiling of H3K27ac in Oral Submucous Fibrosis and Oral Squamous Cell Carcinoma: An Immunohistochemical Study.	IEC/RDDC&RC/DEAN/159/2024
2.	Sana Ifra	Dr. Ashish Bodhade	To evaluate behavioral Changes and Physiological parameters in patients suffering from dental pain: A cross-sectional study	IEC/RDDC&RC/DEAN/181/2024
3.	Priyal Wasule	Dr. Alka Dive	Evaluation of Salivary pH, salivary flow rate gustatory perceptions among post-menopausal women- An observational study.	IEC/RDDC&RC/DEAN/06/2024
4.	Dr. Harshada Misal	Dr. Shubhangi Bagdey	Assessment of awareness and knowledge regarding tobacco related oral cancer and potentially malignant disorders among dental patients- A cross sectional study	IEC/RDDC&RC/DEAN/139/2024
5.	Dr. Sheetal Kedar	Dr. Ashish Bodhade	A quantitative evaluation of saliva in persons without habit, with habit without oral submucous fibrosis and oral submucous fibrosis patients.	IEC/RDDC&RC/DEAN/109/2024

ORAL SURGERY

SR.NO.	PRINCIPAL INVESTIGATOR	CO-INVESTIGATOR	TITLE	IEC NUMBER
1.	Dr. Kshitij Bang	Dr. Hrushikesh Malikar	Clinicoradiographic comparative evaluation of xenograft plus platelet rich fibrin over platelet rich fibrin in trans sinus implants: A Randomized Controlled trial	IEC/RDDC&RC/STAFF/OS/111/2025
2.	Dr. Sandeep Khandaitkar		Comparative evaluation of effectiveness of 2% Lignocaine HCL, 2% Lignocaine HCL with 0.2ml 10% Magnesium Sulfate, and of 2% Lignocaine HCL with	IEC/RDDC&RC/STAFF/OS/129/2025

			1:200,000 Adrenaline 0.2ml 10% Magnesium Sulfate in Infraorbital Nerve block- A Randomized Control Trial	
3.	Kanak Kene	Dr. Rahul Dahake	Comparative evaluation of Abgel soaked in triple antibiotic paste vs plain Abgel in mandibular third molar surgery- A Randomized Control Trial	IEC/RDDC&RC/INT/OS/156/2025
4.	Venus Kale	Dr. Vrinda Kolte	Comparing the effectiveness of Adrenaline, Clonidine, and Dexmedetomidine in enhancing local anesthesia for orthodontic extractions using the Infraorbital block: A Randomized Controlled trial	IEC/RDDC&RC/INT/OS/142/2025
5.	Savi Jain	Dr. Ramakrishna Shenoi	Effectiveness of Metronidazole coated silk sutures vs conventional silk sutures in healing of wound after disimpaction surgery of mandibular third molars: A prospective comparative study	IEC/RDDC&RC/INT/OS/155/2025
6.	Bhumi Khandelwal	Dr. Nilima Budhreja	A comparative evaluation of vertical mattress vs running X suturing techniques in achieving optimal wound closure over chin region- A double blinded randomized controlled trial.	IEC/RDDC&RC/INT/OS/154/2025
7.	Tanvi Karemore	Dr. Sandeep Khandaitkar	Comparative evaluation of effectiveness of 2% Lignocaine HCL, 2% Lignocaine HCL with Magnesium Sulfate, and of 2% Lignocaine HCL with 1:200,000 Adrenaline in Inferior alveolar nerve- A Randomized Control Trial	IEC/RDDC&RC/INT/OS/143/2025
8.	Yasha Kothari	Dr. Kshitij Bang	Block v/s Infiltration: Comparative analysis assessing the effectiveness of infraorbital nerve block and buccal infiltration in orthodontically indicated maxillary premolar extractions- A split mouth, single blind, Randomized control trial.	IEC/RDDC&RC/INT/OS/162/2025

ORTHODONTICS

Sr.NO.	PRINCIPAL INVESTIGATOR	CO-INVESTIGATOR	TITLE	IEC NUMBER
1.	Dr. Harshal C. Burile	Dr. Himija Karia	Attitude, knowledge and perception of the effects of debonding on surface enamel amongst orthodontists; A questionnaire based study.	IEC/RDDC&RC/PG/ORTHODONTICS/125/2025
2.	Dr. Akshata Awachat	Dr. Ananaya Hazare	Designing an AI-powered workflow for a mobile application to assess the orthodontic treatment need of tribal population in Gadchiroli district using intraoral photographs.	IEC/RDDC&RC/PG/ORTHODONTICS/174/2025

PEDIATRICS AND PREVENTIVE DENTISTRY

Sr.NO.	PRINCIPAL INVESTIGATOR	CO-INVESTIGATOR	TITLE	IEC NUMBER
1.	Dr. Neha Tapadiya	Dr. Purva Chaudhari	Comparative evaluation of cleaning efficacy and effectiveness of triple headed toothbrush and manual U shaped tooth brush in 3-6 years aged children: A Randomized controlled trial	IEC/RDDC&RC/PG/PEDODONTICS/138/2025
2.	Dr. Shruti Dhawale	Dr. Devendra Nagpal	Effectiveness of Biofeedback therapy on Dental anxiety of 7-12 year old children during restorative procedure: A randomized controlled trial.	IEC/RDDC&RC/PG/PEDODONTICS/137/2025
3.	Devangi Bhute	Dr. Samrudhi Khondalay	Effectiveness of traditional versus digital oral health education interventions among Parents of Kindergarten children- An interventional study.	IEC/RDDC&RC/UG/PEDODONTICS/169/2025

PUBLIC HEALTH DENTISTRY

Sr.NO.	PRINCIPAL	CO-INVESTIGATOR	TITLE	IEC NUMBER
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	INVESTIGATOR			
1.	Palak Gupta	Dr. Swapnil Patil	Association of dermatoglyphic patterns and Salivary pH with dental caries in individuals with juvenile diabetes: A cross-sectional study.	IEC/RDDC&RC/INT/PHD/170/2025
2.	Dakshita Pohane	Dr. Venugopal Reddy	Assessment of effect of exposure to pesticide on oral health status of Farmers in Hingna Taluka- Cross-Sectional Comparative Study.	IEC/RDDC&RC/INT/PHD/180/2025

ORAL MEDICINE, DIAGNOSIS AND RADIOLOGY

SR.NO.	PRINCIPAL INVESTIGATOR	CO-INVESTIGATOR	TITLE	IEC NUMBER
1.	DR. Shahoo Bahale	Dr. Tapasya Karemore	Evaluation and correlation of the effect of maxillary sinus volume on craniofacial growth pattern in Vidarbha region: A CBCT Study.	IEC/RDDC&RC/PG/ODMR/124/2025
2.	Dr. Archita Patel Dr. Palak Kasliwal	Dr. Mukta Motwani Dr. Surekha Rathod	Comparative evaluation of a portable device with conventional method of screening of patients of oral submucous fibrosis- A cross sectional observational study.	IEC/RDDC&RC/PG/ODMR/115/2025
3.	Dr. Archita Patel	Dr. Mukta Motwani	Evaluation of reliability of newly developed machine learning model to estimate human age using panoramic radiographs	IEC/RDDC&RC/PG/ODMR/10/2025
4.	Dr. Poonam Ambhore	Dr. Tapasya Karemore	Evaluation of efficacy of Moringa leaves extract in treatment of Oral Submucous Fibrosis in comparison with standard treatment protocol - A Randomised Controlled Trial	IEC/RDDC&RC/PG/ODMR/11/2025
5.	Dr. Ruchita Bhujade	Dr. Apeksha Dhole	Comparative evaluation to check efficacy of Silver nanoparticles, Salibact and Chlorhexidine mouthwashes against Candida Albicans in complete denture wearer -A Randomized Controlled trial	IEC/RDDC&RC/PG/ODMR/12/2025
6.	Rishita Akre	Dr. Apeksha Dhole	Comparative assessment of three different educational	IEC/RDDC&RC/DEAN/08/2024

			methods in visually impaired individuals regarding tobacco & areca nut use-A multicentric study.	