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| **لاین تحقیقاتی دانشکده دندان پزشکی** |
| Field of research Research Lines  |
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| Diagnosis & periodontal disease risk factors | * Clinical and paraclinical techniques.
* Epidemiology
 |
| Periodontal microbiology & immunology | * Periodontal biofilm
* Molecular biology.
* Genetics in periodontal medicine.
 |
| Periodontal medicine & systemic conditions | * Smoking
* Pregnancy
* Diabetes and metabolic conditions.
* Geriatric periodontology.
* Cardiovascular diseases
* Pulmonary diseases
* Stroke
* Systemic markers
 |
| Advanced periodontics.  | * Regenerative periodontics and tissue engineering .
* Soft tissue management & esthetics.
* Biomaterials.
 |
| Dental Implants | * Implant Biomechanics.
* Implant surface.
* Complications & management of implant complications.
* Treatment plan and surgical protocols
* Soft and hard tissue augmentation techniques
 |

 | پریودانتیکس (9) | 1 |
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| Fixed restorations | * Cer-fused to metal Alloys (Characterization, modifications, surface treatments, new materials development.
* Cer-fused to metal ceramics (Characterization, modifications, new materials development.
* All-ceramic restorations.
* Resin-bonded restorations.
* Lab. Procedures.
* Tooth preparations: Biomechanics, esthetics, biocompatibility,…)
 |
| Biomaterials | * Luting agents & cements.
* Modification and development of dental ceramics.
 |
| Interdisciplinary prosthodontics. | * Periodontal issues.
* Operative dentistry and prosthodontics.
* Oral surgery and tissue management.
 |
| Color and optical properties in prosthodontics | * Color matching techniques, tools and software.
* Dental photography
 |
| Removable prosthodontics | * Management of complications.
* Biomaterials.
 |
| Interdisciplinary restorative dentistry. | * Endodontic issues.
* Periodontal issus.
* Orthodontic issues
 |
| Advanced restorative dentistry. | * Digital restorative dentistry.
* Tele-dentistry.
* Bioceramics in restorative dentistry.
* Laser assisted in restoration procedures.
 |
| Biomimetic restorative dentistry | * Deep margins elevation.
* Biomaterials.
* Biomechanics.
* Clinical studies.
 |
| Bleaching  | * Tooth whitening products.
* Various application of bleaching materials.
 |
| Restorative Dental Materials | * Direct restorations.(Amalgam, Composite, Glass ionomer, pulp cap materials, liner&bases)
* Indirect restorations.(Metals, Ceramics)
* Biocompatibility of restorative materials.
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 | ترمیمی و زیبایی (12) | 2 |
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| --- | --- |
| Fixed restorations | * Cer-fused to metal Alloys (Characterization, modifications, surface treatments, new materials development.
* Cer-fused to metal ceramics (Characterization, modifications, new materials development.
* All-ceramic restorations.
* Resin-bonded restorations.
* Lab. Procedures.
* Tooth preparations: Biomechanics, esthetics, biocompatibility,…)
 |
| Biomaterials | * Luting agents & cements.
* Modification and development of dental ceramics.
 |
| Interdisciplinary prosthodontics. | * Periodontal issues.
* Operative dentistry and prosthodontics.
* Oral surgery and tissue management.
 |
| Color and optical properties in prosthodontics | * Color matching techniques, tools and software.
* Dental photography
 |
| Removable prosthodontics | * Management of complications.
* Biomaterials.
* Biomechanics
 |
| Advanced prosthodontics | * Digital prosthodontics.
* Tele-dentistry.
* Full-mouth reconstruction.
* Laser assisted in restoration procedures.
 |
| Implant-supported fixed or removable prostheses | * Biomaterials.
* Biomechanics
* complications
 |
| Occlusion | * Occlusal Disease
* Vertical Dimension
* Solving Occlusal Problem
 |
| Temporomandibular joint | * Temporomandibular Disorders
* Etiologic Factors
* Parafunction
* Bruxism &Clenching
* Management
* Appliance therapy
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 | پروتزهای دندانی (17) | 3 |
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| Diagnosis | * Radiographic interpretations in endodontic and non-endodontic lesions.
* Pulp vitality tests in differential diagnosis.
* Non-endodontic lesions.
 |
| Pain and Pain control | * Diagnosis of non-endodontic origin pain.
* Management of non-endodontic origin pain.
* Post treatment pain and flare-ups.
 |
| Endodontic anatomy | * Varieties in tooth anatomy in Iran.
* Tooth anatomy and success of treatment.
* Specified cleaning and obturation techniques.
 |
| Cleaning, shaping & obturation of root canal | * Biomaterials: characterization, modification, and development
* New Techniques and modifications.
* Root canal irrigates and techniques.
* Herbal extractions usage in irrigation.
 |
| Management of accidents and failures  | * Management of root perforations.
* Non-surgical retreatments
* Endodontic surgery.
 |
| Regenerative endodontics | * Growth factors
* Tissue scaffolds for pulp regeneration.
* Revascularization.
 |
| Dental trauma | * Vital pulp therapy
* Non-vital pulp therapy
* Biomaterials
 |
| Advanced endodontics | * Root resorptions.
* Vital pulp therapy.
 |

 | اندودانتیکس (13) | 4 |
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| OMFS post-op complications | * Prevention and management of post-op pain and other complications.
* Management of wound healing
 |
| Dentofacial Deformities | * Correction and reconstruction of dentofacial deformities.
* Facial cosmetic surgeries.
* Management of orofacial clefts.
 |
| Management of pain | * Facial neuropathies.
* TMJ disorders.
 |
| Dental rehabilitation & implant dentistry | * Management of bone & socket preservation.
* Techniques & biomaterials for correction of ridge deficiency.
 |
| Biomaterials in OMFS | * New application techniques.
* Development of new biomaterials.
 |
| Orofacial malignancies and other pathologic lesions. | * Surgical techniques.
* Management of complications.
* Differential diagnosis and biopsy of lesions.
 |
| Dentofacial Trauma | * Tooth & soft tissue management.
* Facial fractures.
 |

 | جراحی دهان، فک و صورت (9) | 5 |
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| Diagnosis | * Radiographic interpretations in caries diagnosis.
* Pulp vitality tests in differential diagnosis.
* Clinical and paraclinical caries detection techniques.
 |
| Dental Caries | * Etiology, Risk Assessment.
* Nutrition and caries.
* Prevention.
 |
| Restorative pediatric dentistry | * Direct composite restorations.
* Amalgam Restoration
* Fissure sealants
* Preventive resin restoration
* Resin infiltration
* Fragment Restoration
* Stainless steel crown
* Zirconia Crown
 |
| Dental Trauma | * Storage media
* Luxation trauma management
* Preventive approach
* Knowledge & attitude
 |
| Advanced pediatric dentistry | * Digital dentistry.
* Tele-dentistry.
* Bioceramics in pediatric dentistry.
* Hospital Dentistry
 |
| Behavior guidance in pediatric dentistry | * Non pharmacologic approach
* Pharmacologic approach
 |
| Pulp therapy in pediatric and adolescent  | * Tooth morphology
* Vital pulp therapy
* Non-vital pulp therapy
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 | دندانپزشکی اطفال (12) | 6 |
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| * Dosimetry & radiation protection.
* Technical errors.
* Radiobiology.
 | Radiology physics |  |
| * Bone lesions
* Soft tissue lesions
* Inflammatory conditions of oral & MF tissues.
* Nasal & paranasal sinus disorders.
* TMJ-related techniques & disorders.
* OMF trauma.
* Dental caries.
 | Oral & Maxillofacial lesions and conditions. |  |
| * Sialography
* Sonographic techniques.
* Nuclear medicine.
* MRI
* CT-CBCT
 | Special radiographic technics in OMFR |  |

 | رادیولوژی دهان و فک و صورت (7) | 7 |
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| Histopathological evaluation of Oral & Maxillofacial lesions | * Immunohistochemistry
* Molecular techniques
 |
| Evaluation of clinicopathological parameters in malignant tumors of head and neck (SCC,…..) | * Survival analysis
* Grading of malignant tumors
* Staging of malignant tumors
 |
| Morphological analysis of histological slides | * Histomorphometric analysis
 |

 | آسیب شناسی دهان و فک و صورت (9) | 8 |
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| Preventive dentistry | * Etiology of oral diseases and conditions
* Impact of diet and nutrition on oral health.
* Risk assessment among different community groups
* Oral health preventive product assessment
 |
| Special care dentistry | * Etiology and Risk Assessment
* Oral health promotion for people with special care needs, such as: Blind people, deaf (impaired hearing), Autistic people with cerebral palsy, …
* Geriatric oral health promotion
 |
| Epidemiologic studies | * Prevalence and incidence of common oral diseases and conditions
* Oral health indices
 |
| Oral health economy  | * Burden of oral diseases
* Economic evaluation of interventions and services at community level( cost effectiveness, cost benefit, …)
* Insurance
 |
| Oral health care management | * Oral health care systems
* Quality improvement of oral health care services.
* Clinical governance
* Development of Clinical Practice Guidelines
* Developing Protocols
 |
| Oral health promotion  | * Designing and testing different oral health promotion interventions at community and population levels.
 |
| Oral health education  | * Increasing Knowledge and attitude of oral health behavior
* Role of media in increasing oral health knowledge such as: social media, pamphlet, poster, and ….
* Role of peer education in oral health
 |
| Evidence based dentistry | * Designing quantitative and qualitative studies.
* Critical appraisal
 |
| Policy making  | * Strategy planning for community oral health promotion and prevention
* Manpower
 |
| Ethics | * Ethics and professionalism
 |

 | سلامت دهان و دندانپزشکی اجتماعی (5) | 9 |
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| Diagnosis – Malocclusion and dentofacial deformities in Iranian society. | * Clinical and paraclinical techniques.
* Epidemiology
* Ecological related factors in malocclusion and dentofacial problems.
 |
| Growth & development -related risk factors for dentofacial problems in Iranian society.  | * Drug abuse and addictions.
* Nutrition in pregnancy and early childhood.
* Genetics
* Orofacial clefts.
 |
| Biomechanics & Biomaterials in orthodontics | * Orthodontic alloys
* Orthodontic polymers and elastomers.
* Orthodontic adhesion
 |
| Preadolescent orthodontic management of dentofacial problems. | * Non-skeletal malocclusions.
* Skeletal malocclusions.
* Growth modification.
 |
| Esthetic orthodontics | * Ortho-surgical treatments.
* Smile design & restorative-orthodontics management of malocclusions and crowding.
* Adjunctive orthodontic treatments.
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 | ارتودانتیکس(9) | 10 |
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| Methodology of lab research in dental materials | * Methods for adhesion strength studies.
* Caries lesion quantification.
 |
| Dental restorative materials | * Bio-functional composites
* Bio-functional adhesive systems.
* Functionally-graded materials
 |
| Preventive materials | * Caries inhibitory peptides.
* Nanomaterials in caries prevention.
 |
| Bioceramics | * Endodontic bioceramics.
* Bone substitution.
 |
| Dental polymers | * Self-adhering monomers.
* Stress of polymerization.
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 | مواد دندانی | 11 |
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| Diagnosis/treatment of common oral ulcers | * New treatment of oral lichen planus
* New treatment of oral aphthous ulcers
* Herbal treatment of oral ulcers
* New treatment of oral vesiculobullous lesions
* New treatment of Mronj/Bronj
* New treatment of oral mucositis
* Novel Strategies for diagnosis of oral ulcers
* New genetic markers for oral diseases
 |
| Early diagnosis of oral cancer | * New histopathologic markers for early diagnosis of oral cancers
* New tools for early clinical diagnosis of oral dysplasia and malignancies
 |
| Preventive strategies of oral cancers | * Detecting risk factors of oral cancers
* Assessing people knowledge and attitude about oral cancer`s risk factors
* Increasing people knowledge about oral cancer risk factors
* Screening for early diagnosis of oral cancers
* Detecting obstacles of early diagnosis of oral cancer
* Tobacco and its effects on oral mucosae
 |
| Laser therapy  | * Co2/diode/low level laser applications in oral and maxillofacial region
 |
| Nutrition in oral medicine | * Role of nutrition in developing of oral lesions
* Assessing oxidative stress markers in oral diseases
 |
| Treatment of systemic compromised patients | * Dental management of systemic diseases
* Dental management of geriatric
* Dental management of disabled people
* Dental hospital practices
 |
| Saliva as diagnosis tool | * Role of saliva as diagnostic tool for oral and systemic diseases
 |
| Oral manifestations of systemic disease | * Prevalence of oral manifestations of systemic diseases
* Oral lesions as early manifestations of systemic diseases
 |
| Exophytic lesions of oral and maxilla facial  | * New strategies for diagnosis and treatment
 |
| Epidemiologic studies in oral medicine | * Prevalence of oral diseases
* Prevalence of oral premalignancies and oral cancer
* Other epidemiologic studies eg: Quality of life,…
 |
| Etiologies and treatment of oral White/red and Pigmented lesions | * Risk factor and etiology of oral white and red lesions
* New treatment of oral white/red and pigmented lesions
 |
| Orofacial pain/TMJ disorders/sleep disorders | * Diagnosis/treatment of orofacial pain
* Diagnosis and treatment of TMJ/sleep disorders
 |
| Multidisciplinary researches | * Medical education, oral health, psychological assessment,…
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 | بیماریهای دهان و فک و صورت (10) | 12 |