

RESEARCH DEPARTMENT

BAQAI DENTAL COLLEGE

Research Output Annual Report 2024-2025

Publication	Year	Numbers
Research articles	2024	22
	2025	12
Review article / systematic review	2024	01
	2025	
Book Chapter	2024	01
	2025	
Patent applications	2024	07
	2025	

PROJECT PRESENTATIONS

1. Project "Development of Biodegradable Polymeric Chips of Chlorhexidine Gluconate" **selected and displayed at the 3rd Sindh Research and Technology Showcase 2024, representing Baqai Medical University.**
2. "Chitosan-Based Biodegradable Oral Chips Impregnated with Chlorhexidine Gluconate for Periodontitis".
Oral presentation at the International Conference of Pharmacy and Pharmaceutical Sciences, Ziauddin University, Karachi. (24 Jan 2025)
3. Chlorhexidine Biodegradable Chip for Periodontal Disease, participated in **Sustainovation Expo 2025, Mega Innovation and Entrepreneurship Event held at Sindh Madressatulislam University. (18 Feb 2025)**
4. "Chitosan-Based Biodegradable Oral Chips Impregnated with Chlorhexidine Gluconate for Periodontitis". **Selected for Oral presentation at the Interdisciplinary Research Conference on One Health (IRCOH), University of Sargodha. (10-11 April 2025).**
5. Participated in Sindh Innovative Startups Exhibition 2025, organized by Sindh HEC and FPCCI, on 27 May 2025, promoting industry-academia collaboration.

PUBLICATIONS 2024

1. Siddiqui AZ, Sultana N, Mirani ZA, Alkhureif AA, Rehan F, Siddiqui IA. Enhancing the antibacterial and surface hardness of glass ionomer cement modified with *Salvadora persica* and Chlorhexidine: An in vitro study. *Pakistan Journal of Medical Sciences*. 2024 Aug 13;40(8).
2. Asaad Javaid Mirza, Mohammad Amin, Saadia Saad. Revitalizing Dental Education: Aligning Curriculum with Contemporary Dentistry *Annals ASH & KMDC* 29 (1), 91-94
3. Asaad Javaid Mirza, Mohammad Amin, Saadia Saad. Building Ethical Foundations: Integrating Ethics into the Dental Curriculum *Baqai Journal of Health Sciences* 24 (2)
4. Sultana N, Akhtar S, Siddiqui AZ. COVID-19 and Food Safety: Guidance for Preventive Techniques in Foodborne Diseases by Microorganisms. *Pakistan Journal of Scientific & Industrial Research Series A: Physical Sciences*. 2024 Feb 27;67(1):76-100.
5. Aijaz, S., Ahmed, S., Kabir, V., Ali, M., Shaheen, M.N. and Raza, S.Z., 2024. Exploring the Depth of Patient Safety and Care: An Investigation into the Knowledge and Attitudes of Healthcare Students Across Undergraduate, Graduate, and Postgraduate Levels. *Journal of Health and Rehabilitation Research*, 4(1), pp.1312-1317.
6. Ali SM, Haider SM, Ikram K, Ali Z, Salman SM, Ali R. A retrospective study of mandibular fractures in tertiary care hospitals of Karachi. *The Professional Medical Journal*. 2024 May 4;31(05):812-6.
7. Salman SM, Yaseen A, Leemani MJ, Ahmed N, Heboyan A. Improved ridge width with tenting screw bone augmentation using particulate and block grafts: A case report. *SAGE Open Medical Case Reports*. 2024 Feb;12:2050313X241229586.
8. Usman S, Ahmed S, Kashif M, Saeed B, Khan S. Clinical Presentation, Tumour Characteristics, Sociodemographic, And Lifestyle-Related Factors of Oral Cancer In Patients Visiting Abbasi Shaheed Hospital, Karachi Pakistan. *Pakistan Armed Forces Medical Journal*. 2024 Apr 29;74(2):405-9.
9. Anjum, A. & Sheikh, N. Oral Potentially Malignant Disorders: A Comprehensive Review of Diagnostic Approaches and Management Strategies. *Journal of Bahria University Medical and Dental College* 2024;14(01): 83–89. <https://doi.org/10.51985/JBUMDC2023223>

10. Shabbir, S., Ahmed, S., Zaidi, S.J.A. et al. Efficacy of seventh generation bonding agents as desensitizers in patients with dentin hypersensitivity: a randomized clinical trial. *BMC Oral Health* **24**, 562 (2024).
<https://doi.org/10.1186/s12903-024-04352-0>
11. “Why Existing Dental Curricula in Pakistan Falls Short in Fostering Imperative Soft skills? Solution, towards Globalization” *Baqai Journal of Health Sciences (BJHS)*.
12. Ali SM, Haider SM, Ikram K, Ahmed U, Ahmed S, Salman SMA. Craniofacial growth Pattern of Thalassemia Major Patients in the heamatological institutes of populations of Karachi Pakistan. *Professional Med J* 2024; 31(06):988-993.
<https://doi.org/10.29309/TPMJ/2024.31.06.7704>
13. Nazir S, Mirza A. Developmental Defects of Teeth Triggered By the Estrogen Given During Pregnancy. *ANNALS OF ABBASI SHAHEED HOSPITAL AND KARACHI MEDICAL & DENTAL COLLEGE*. 2024 Nov 30;29(4):376-83.
14. Wali, A., Sethi, A., Alam, S. N., Haq, M. A. ul, & Hashmi, R. (2024). E-Learning: Exploring The Factors Influencing Faculty Readiness During Covid -19 Pandemic For Online Teaching. *Journal Of Khyber College Of Dentistry*, 14(4), 59–64.
<https://doi.org/10.33279/jkcd.v14i4.136>.
15. Zafar F, Riaz M, Ahmed R, Kumar R. Soft-tissue augmentation for increasing keratinized tissue around dental implants: A systematic review. *Journal of Indian Society of Periodontology*. 2024 Jul 1;28(4):417-26.
16. Noor R, Aslam S, Memon AA, Ali I, Zaidi HA, Ali A. Electric Pulp Test Threshold Responses in Healthy Mature Permanent Teeth: Electric Pulp Test Threshold Responses in Healthy Teeth. *Pakistan Journal of Health Sciences*. 2024 Sep 30:81-5.
17. Shah, S.G., Ahmed, A., Ahmed, A., Ikram, K., Mirza, A., Ahmed, S. and Ahmed, S.N., 2024. Assessment of Occupational Based Stress and Internal Coherence Related with Quality of Life Through Heartrate Variability (HRV)-A Cross Sectional Study. *Journal of Health and Rehabilitation Research*, 4(2), pp.1591-1596.
18. Shahid R, Mujahid A, Kanwal S, Inayat A, Lone MA. Prosthodontic Management of a Patient with Ectodermal Dysplasia—A Clinical Report. *Annals of Jinnah Sindh Medical University*. 2024 Dec 31;10(2):87-90.
19. Khan MF, Ahmed Khan FN. Two-Piece Maxillary Hollow Obturator Retained by Mini Magnets: A Case Report. *Journal of the Pakistan Dental Association*. 2024 Apr 1;33(2).

20. Javaid MA, Mirza AJ, Ikram K, Khan MF, Ahmed R. Gingival biotype and width of attached gingiva - A prevalence study. *J Pak Dent Assoc* 2024;33(3):67-72. <https://doi.org/10.25301/JPDA.333.67>
21. Anjum A, Sheikh N. Oral Potentially Malignant Disorders: A Comprehensive Review of Diagnostic Approaches and Management Strategies. *J Bahria Uni Med Dental Coll.* 2024;14(1):83-9 DOI: <https://doi.org/10.51985/JBUMDC20>
22. Shah SG, Ahmed A, Ahmed A, Ikram K, Mirza A, Ahmed S, Ahmed SN. The association of human emotional wellbeing on metabolic and cardiovascular health. *Int Med J.* 2024 Sep;31(9):9477-9503. doi: 09.1725/Imj.28.05.2025.01.

PUBLICATIONS 2025

1. Wali A, Hashmi UP, Jawed R, Solanki S, Shakeel I. Predatory Journals and Publishers: Understanding Researchers' Knowledge and Perception Towards Predatory Publishing. *Found Univ J Dent.* 2025;5(1):49-55.
2. Abid, M., Rauf, R., Siddiq, A., Mazhar, S., Zaidi, H. A., & Zafar, U. (2025). Comparison of the Side Effects of Chlorhexidine and Honey Mouthwash among Dental Patients: A Randomized Controlled Trial: Side Effects of Chlorhexidine and Honey. *Pakistan Journal of Health Sciences*, 6(1), 75–79. <https://doi.org/10.54393/pjhs.v6i1.1970>
3. Nazir, S., & Mirza, A. (2025). Influence of Lithium On Micro-Hardness of Dental Tissues: Lithium On Micro-Hardness of Dental Tissues. *Pakistan BioMedical Journal*, 8(3), 07–12. <https://doi.org/10.54393/pbmj.v8i3.1165>
4. Lone MA, Mujahid A, Kiran A, Jabeen B, Choudhry Z, Jagirani SA. Frequency of edentulism and its associated factors among patients attending a tertiary care hospital in Karachi. *J Pak Dent Assoc* 2025;34(1):11-16. DOI: <https://doi.org/10.25301/JPDA.341.11>
5. Nazir S, Mirza A. Lithium influence on inorganic component of developing dental tissues in pregnancy. *Gomal J Med Sci* 2025 Jan-Mar;23(1)Special:101-5.
6. Mirza, A., Wali, A., Ullah Abro, S., Nazir, S., Riaz, M., & Khan, M. Knowledge and Perceptions of Dental Students Regarding Vape (E-Cigarette) Usage in Karachi: A Multicenter Cross-Sectional Study. *Journal of Aziz Fatimah Medical & Dental College* 2025; 7(1): 20–27.

7. Mirza A, Nazir S, Zehra F T, Mirza A J. Awareness of Periodontal Health and Its Systemic Implications: A Study on Dental Patients' Perception [Online]. *Annals of ASH & KMDC*. 2025; 30(2) 144-151.
<https://doi.org/10.55279/jafmndc.v7i1.405>
8. Wali A, Arif A, Shamim A, Siddiqui TM. The perspectives of dental students on the integration of research in undergraduate curricula. *Rehman J Health Sci*. 2025;7(1). 123-127.
9. Ali M, Haider M, Ikram K, Ahmed S, Abbasi ZA, Rana A, Khalil M. Interplay between diabetes mellitus and salivary gland changes with their clinical implications. *Professional Med J* 2025; 32(02):194-198. <https://doi.org/10.29309/TPMJ/2025.32.02.8344>
10. Saad S, Ali RP, Najam U, Shahid U, Mirza AJ Early CBC Screening for Detecting Subclinical Anemia in Adolescent Females. *Pak J Med Dent*. 2025 Jan ;14(1): 152-156. Doi: <https://doi.org/10.36283/ziun-pjmd14-1/022>.
11. Zafar, F., Sheraz, M.A., Ali, S.A. et al. PEGylated chitosan xerogels for localized periodontal therapy: design, characterization, and drug release. *Sci Rep* 15, 20519 (2025). <https://doi.org/10.1038/s41598-025-05894-1>
12. Zafar F, Sheraz MA, Ali SA, Riaz M, Ahmed S, Anwar Z. Novel antibiotic-loaded pegylated xerogels of acidified chitosan for periodontal diseases. *Current Drug Delivery*. 2025 Mar 26. <https://doi.org/10.2174/0115672018377472250326061736>.

FURNISHED/ ONGOING RESEARCH PROJECTS

Faculty/ House surgeons/ students

Principal Researcher's	Title
1. Dr Aisha Wali	Assessment of knowledge and awareness of Artificial intelligence and its uses in dentistry among graduates and undergraduate
2. Prof. Dr. M. Farhan Khan	Communication Methods Between Dentists and Dental Laboratory Technicians: A Cross-Sectional Survey in Pakistan
3. Dr Kelash Kumar	Over treatment: a business approach in an esthetic dentistry- A survey-based study for dental practitioners in Pakistan.
4. Prof. Dr. Adel Zia Siddiqui	A survey of knowledge, attitude and practice of hand hygiene in a private dental institution.
5. Dr Aimen Zahid	Dental House surgeons and Undergraduates perspective on Oral Pathology Professional Pursuit
6. Dr Aisha Kiran	Evaluating the perspective and attitude towards the utilization of AI by practicing clinician and dental students dealing with dental materials: A Survey Study at Baqai Dental College
7. Dr Aisha Kiran	Comparative evaluation of Oral Health Knowledge, Attitudes, and Behaviors among Preclinical and Clinical Dental Students: A Survey at Baqai Dental College
8. Dr Danish Shahnawaz.	Exploring Parental Perception and Awareness of a Dental Home for Children in Pakistan – A Cross-Sectional Study
9. Dr Farjad Zafar	Association of Calciferol levels in the serum with peri-implantitis
10. Dr Farjad Zafar	Association of ascorbic acid levels in the serum with peri-implant mucositis
11. Dr. Talha Tanveer	Revisiting Alginate Impressions: Brief Analysis Integrating Patient feedback in Dental Students

12. Dr. Saleha Shah Undergraduate dental students' perception of Pediatrics Dental Teaching in Dental schools in Karachi, Pakistan
13. Dr Muhammad Ali Leghari The Impact of Anterior vs. Posterior Tooth Loss on Oral Health-Related Quality of Life: An OHIP Analysis
14. Dr Maaz Asad Comparative Analysis Between the Periodontal Classifications: Stages of Periodontitis and Gingival Phenotype
15. Dr Raza Abbas Impact of diabetes and periodontal status on life quality
16. Dr. Samreen Mazhar Impact of Dental Caries Experience among Patients with Thyroid Disorders affecting Quality of life
17. Dr Hira Mehmood Exploring the Perceptions and Implications of AI in Pakistani Healthcare through the Lens of Educators
18. Dr. Saleha Shah Association of Food insecurity and dental caries in children and adolescents
19. Dr Sharjeel Bashir Perception of the term oral and maxillofacial surgery as a specialty among dental and medical students.
20. Dr Muhammad Uzair Correlation Of Skeletal & Dental Parameter in Sagittal & Vertical Plane
21. Dr. Mahwish Bano Evaluation of Oral Health Related Quality of Life in a Group of Dental Students enrolled in private University
22. Dr Maaz Asad To evaluate the effects of Probiotics (Lactobacillus), antibiotics (Doxycycline 100mg) and metronidazole gel (25%) as an adjuvant to non-surgical periodontal therapy
23. Dr Sania Riaz Comparison of effectiveness of three different desensitizing agents on post ultrasonic scaling hypersensitivity.
24. Dr Juzer Shabbir Root and Canal morphologic assessment of maxillary and mandibular anterior teeth in a sub population of Karachi –A cross sectional CBCT analysis
25. Dr Shafaq Saeed Roghay Ensuring water safety: microbiological assessment of dental units in Karachi teaching
26. Dr Aneeqa Shahab Evaluating Psychological Well-being in Dental Students: The Role of Resilience

27. Dr Aneeqa Shahab Assessing Mental Health and Well-Being in Dental Graduates: A Study Using Warwick-Edinburgh Mental Well Being Scale (WEMWBS)
28. Dr Arsalan Mirza Assessment of mental health literacy in health care teaching faculty. A multi-center study
29. Dr Shafaq Saeed Roghay E-Cigarettes the Spotlight: Assessing Awareness and Perceptions Among Medical and Dental College Students
30. Dr. Aliya Perception of knowledge and attitude of dental students regarding the importance of communication skill in dental practice.
31. Dr Arsalan Mirza The heart mind connection: how emotional intelligence influence job satisfaction