

IBN-E-SINA UNIVERSITY, MIRPURKHAS



MUHAMMAD MEDICAL COLLEGE, MIRPURKHAS
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MUHAMMAD INSTITUTE OF PHYSIOTHERAPY & REHABILITATION
MUHAMMAD INSTITUTE OF BUSINESS ADMINISTRATION
MUHAMMAD COLLEGE OF NURSING

ABSTRACT BOOK **27th Annual Medical Symposium 2025** **AMS-ISUM 2025**



THEME:

**THEME: ENHANCING QUALITY ASSURANCE AT A NEW UNIVERSITY
IN RURAL PAKISTAN .**

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***“WITHOUT DATA YOU ARE JUST ANOTHER PERSON
WITH AN OPINION”***

ABSTRACT BOOK

**27th ANNUAL MEDICAL SYMPOSIUM OF
IBN-E-SINA UNIVERSITY
MIRPURKHAS (ISUM)**

**THEME: QUALITY ASSURANCE ENHANCING IN
NEWLY FORMED UNIVERSITIES OF RURAL AREAS**

**PREPARED BY
PROF DR. FARZANA MAJEED
SECRETARY SCIENTIFIC COMMITTEE
DIRECTOR RESEARCH
ISUM SINDH**

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27th ANNAUAL MEDICAL SYMPOSIUM OF IBN-E-SINA UNIVERSITY MIRPURKHAS (ISUM) 2025

THEME: QUALITY ASSURANCE ENHANCING IN NEWLY FORMED UNIVERSITIES OF RURAL AREAS

Preface

It is with immense pride and a profound sense of purpose that we present this abstract book for the 27th Symposium of Ibn-e-Sina University, Mirpurkhas (ISUM). ISUM is the first ever University of Mirpurkhas. This collection represents the intellectual heart of our gathering, dedicated to a theme of critical importance to our identity and our future: "Enhancing Quality Assurance at a New University in Rural Pakistan."

The establishment of a university in a rural setting like Mirpurkhas is not merely an act of building infrastructure; it is a promise. A promise to bring the light of high-quality education, innovative research, and transformative opportunities to the very doorsteps of communities that have historically been on the periphery of the nation's academic landscape. At ISUM, we have embraced this challenge with a deep commitment to our students and our region.

However, with this noble mission comes a tremendous responsibility. How do we ensure that the education we provide is not just accessible, but also exceptional? How do we build robust systems that guarantee academic rigor, relevance, and continuous improvement? How do we, as a "new university," rapidly establish a culture of quality that can stand shoulder-to-shoulder with the most venerable institutions in the country? These are the pivotal questions that this symposium seeks to address.

The research, case studies, and scholarly discussions compiled in this volume explore the multifaceted dimensions of Quality Assurance (QA). From innovative pedagogical strategies and faculty development programs to robust assessment methodologies, community-engaged research, and the integration of technology in learning, the abstracts herein offer a rich tapestry of ideas. They reflect the collective determination of our faculty, researchers, and students to not only participate in the national discourse on higher education but to lead it from a uniquely contextualized perspective.

This symposium is more than an academic exercise; it is a declaration of our intent. It marks a pivotal moment in our journey where we move from foundational establishment to a phase of deliberate, evidence-based excellence. We extend our deepest gratitude to our keynote speakers, session chairs, contributors, and all the participants who have joined us in this crucial endeavor.

As you delve into these pages, we invite you to engage with the ideas presented, to challenge them, and to collaborate with us in building a model of quality assurance that is both resilient and responsive.

Together, let us ensure that Ibn-e-Sina University, Mirpurkhas, becomes a beacon of academic excellence, proving that geography is no barrier to quality, and that a new university can set new standards.

Prof. Dr. Syed Razi Muhammad

MBBD (Dow), FRCS, FRCSED, Dip Urol (UCL), Master Med Education (Dundee)

Chancellor

Ibn-e-Sina University, Mirpurkhas

QUALITY ASSURANCE ENHANCING IN NEWLY FORMED UNIVERSITIES OF RURAL AREAS

The symposium is preceded by multiple workshops on key topics including

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2.	03/09/2025	Department of Medicine	Oxygen Delivery System	Medicine Department
3.	15/09/2025	Department of Eye	Ocular Surgery on Bovine Eye	Prof Dr. Rajesh Rathi
4.	18/09/2025	Department of Medical Education	Scientific writing	Dr. Kiran Fatima
5.	18/09/2025	Department of Medical Education	Medical professionalism	Prof Dr. Zafar H Tanveer
6.	19/09/2025	Department of Medical Education	Learning Skills	Prof Dr. Farzana Majeed
7.	22/09/2025	Department of Nephrology, Medicine & Allied	Central Venous Pressure Line	Dr. Babita
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9.	25/09/2025	Department of Pediatrics	Recognizing Seizure & Seizure Mimics in Children	Peds department
10	25/09/2025	Department of Medicine in Collaboration with Cardiology Department	How to Interpret Electrocardiogram (ECG)	Medicine department
11	25/09/2025	Department of gynecology	Manual Vacuum Pressure	Gynae Department
12	26/09/2025	Department of Physiotherapy	Gait Analysis	Dr. Ramzana Chang
13	19/09/2025	Medical education	Medical Professionalism	Dr. Kiran Fatima
14	20/09/2025	Medical education	Learning Skills	Prof Dr. Farzana Majeed

15	30/9/2025	Oral Radiology	CBCT	Dr. Sarang
16	30/9/2025	Research Department	Integration of AI in Research	Dr. Ayesha
17	30/9/2025	Community Dentistry	Research Questionnaire Development	Dr. Rehmatullah Jani
18	30/9/2025	Medical Education	Medical Ethics	Dr. Kiran Fatima
19	30/9/2025	Oral Maxillofacial Department	Fixation and Flaps	Prof. Dr. Qadeer Ul Hassan

Enhancing Quality Assurance in Pakistani Universities: A Comparative Study of Elite Institutions

Authors: Prof Dr. Zafar H Tanveer, Principal MMC, Prof. Dr. Syed Razi Muhammad, Chancellor ISUM

Prof Dr. Farzana Majeed Director Research ISUM

Abstract:

Quality Assurance (QA) is a cornerstone of sustainable higher education development, yet Pakistani universities grapple with systemic gaps despite regulatory frameworks. This study conducts a comparative analysis of QA mechanisms across two public sector universities and one private university often regarded as "elite" models for the sector. Using a mixed-methods approach, data were collected via a structured questionnaire (n=150 stakeholders: 50 students, 50 faculty, 50 administrators) and thematic analysis of open-ended responses.

Quantitative results reveal significant disparities in QA satisfaction: private universities achieve a mean score of 3.8/5, outperforming public counterparts (2.9–3.1/5). This gap stems from enhanced infrastructure (85% of private respondents report adequate ICT facilities vs. 42% in public universities), proactive stakeholder engagement (71% of private students consulted regularly in QA decisions vs. 22% in public), and robust faculty training (60% of private faculty attended QA workshops in the past year vs. 31% in public).

Qualitative insights uncover systemic challenges: curriculum obsolescence (65% of public students cite outdated syllabi misaligned with industry needs), political interference (58% of public faculty attribute bureaucratic delays to politically appointed leadership), and weak industry linkages (72% of public administrators report insufficient corporate partnerships).

The findings advocate for transformative reforms: (1) decentralized governance to grant public universities financial and administrative autonomy, (2) increased HE funding to 2% of GDP to address infrastructure and faculty shortages, and (3) technology-integrated QA systems (e.g., AI-driven analytics for real-time feedback).

This research bridges a critical literature gap by centering elite institutions whose practices could scale nationally and offers actionable pathways to elevate Pakistan's higher education quality to global benchmarks.

Keywords: Quality Assurance, Higher Education, Pakistan, Institutional Governance, Stakeholder Perception, Comparative Analysis.

Role of Hospital Information Management Systems (HIMS) in improving patients care

Authors: Prof Dr. Jawaid Aqeel

Director Hospital MMCH.

Abstract:

Information technology (IT) has revolutionized healthcare, fundamentally altering how hospitals manage operations and deliver patient care. A Hospital Information Management System (HIMS) is a comprehensive, integrated software solution designed to digitize and optimize every aspect of hospital functioning from patient registration to discharge. By centralizing electronic health records (EHRs), clinical data, administrative workflows, and financial transactions, HIMS eliminates silos, accelerates information exchange, and minimizes manual errors inherent in traditional paper-based systems. Key advantages include enhanced operational efficiency (e.g., automated appointment scheduling, bed allocation), improved clinical decision making (real time access to patient histories and test results), and elevated patient safety (reduced medication errors via computerized physician order entry).

Muhammad Medical College Hospital (MMCH) has embraced HIMS to drive a transition toward a paperless or minimal-paper environment. The system integrates critical modules such as EHRs, laboratory information systems (LIS), pharmacy management, and billing, ensuring seamless data flow across departments. For instance, clinicians can instantly retrieve patient records during rounds, while pharmacists access prescription details electronically to prevent drug interactions. Administrative staff benefit from automated billing and insurance processing, reducing revenue cycle delays. Patients gain from streamlined registration and the ability to access their records via secure portals, fostering greater engagement.

By leveraging HIMS, MMCH aims to enhance care coordination, shorten turnaround times for diagnostics, and ultimately improve patient outcomes. The shift away from paper not only optimizes resource utilization but also aligns with global best practices in digital healthcare, positioning the institution as a leader in technology-driven patient care.

Comparative Analysis of Undergraduate Accreditation Criteria by PMDC and HEC: A Focus on Quality Assurance in Higher Education of Pakistan

Authors: Prof Dr. Farzana Majeed, Director Research, Prof Dr. Zafar H Tanveer, Principal MMC

Prof. Dr. Syed Razi Muhammad, Chancellor ISUM

Abstract

Accreditation serves as a cornerstone of quality assurance in higher education, ensuring institutions meet minimum standards for student outcomes, resource allocation, and program relevance. In Pakistan, two primary bodies govern undergraduate accreditation: the Pakistan Medical and Dental Council (PM&DC) was established in 1962 to regulate medical and dental programs and the Higher Education Commission (HEC) is a statutory body formed by the Government of Pakistan which was established in 2002 under the Chairmanship of Atta-Ur-Rahman. 2002 to oversee all disciplines, including arts, sciences, engineering, and social sciences. While both entities share the goal of enhancing educational quality, their criteria reflect distinct mandates: PMDC's focus on clinical competence contrasts with HEC's broader emphasis on holistic development.

This study conducts a comparative analysis of undergraduate accreditation criteria established by PMDC and HEC, using document analysis and thematic coding to examine 12 core criteria across both bodies, including curriculum design, faculty qualifications, infrastructure, assessment mechanisms, and institutional governance. Results indicate significant alignment in overarching goals but divergent emphases: PMDC prioritizes clinical competencies and patient safety, while HEC focuses on interdisciplinary learning and research integration. Quantitative data reveals PMDC's stricter compliance thresholds for medical programs (85% vs. HEC's 70%) and a 30% higher weightage for practical training. Thematic analysis highlights PMDC's reactive approach to regulatory updates versus HEC's proactive inclusion of digital literacy and sustainability.

The study concludes that harmonizing criteria could enhance efficiency without compromising specialized standards, recommending a joint task force for periodic reviews. This research contributes to the discourse on accreditation efficacy in developing nations, emphasizing the need for context-specific frameworks.

Keywords: Undergraduate accreditation, PMDC, HEC, quality assurance, medical education, higher education, comparative analysis.

Assessing the readiness to Implement Competency-based Medical Education (CBME) in a Rural University: An Exploratory Study

**Authors: Dr. Kiran Fatima, AP Medical Education Prof Dr. Syed Razi Muhammad Chancellor
ISUM**

Abstract

Background:

Competency-Based Medical Education (CBME) has emerged as a globally recognized framework for improving the quality, accountability, and relevance of medical and dental education. It emphasizes outcome-based learning, clinical competence, and objective assessments compared to traditional time-based curricula. In Pakistan, transitioning to CBME requires an evaluation of faculty awareness, readiness, and institutional support.

Objective: To evaluate the factors that affect CBME readiness, awareness, and institutional support for implementing CBME in ISUM.

Methods:

An exploratory, questionnaire-based survey was designed to assess faculty readiness for CBME implementation at Ibn-e-Sina University, Mirpurkhas, after obtaining ERB. The questionnaire comprised of demographic information (age, gender, discipline, qualification, and teaching experience) and 24 items measured on a 5-point Likert scale. To capture key dimensions of CBME implementation, the items were divided into five subthemes: awareness and knowledge, perceptions and attitudes, institutional support, faculty readiness, and barriers and challenges. The data was entered on SPSS version 27 for analysis. P-value > 0.05 was considered as statistically significant.

Results:

Total of n=95 forms were completed in all aspects, hence the response rate was 79%. Total n=55 (57.9% were female and n=40 (42.1%) were male teachers. The majority, n=35 (36.8%) of faculty members were between 30 and 39 years of age. A statistically significant association was found between experience and readiness for implementation of CBME at a p-value of 0.006. The majority, n=53, of teachers were involved in dentistry undergraduate teaching. A total of n=63 (66%) teachers were able to differentiate between traditional and CBME. There was a significant association found between ages and teaching experience of teachers to implement CBME in ISUM at p-values of 0.006 and 0.065, respectively. There was a strong association found between institutional support and faculty development program to implement CBME in ISUM at p-values 0.085 and 0.055, respectively.

Conclusion:

faculty members were aware, ready, and well-trained to implement CBME in ISUM. Institutional support is one of the major strengths for implementing CMBE contextually.

Accreditation and Quality assurance of medical and health sciences post-graduate programs in Pakistan

Author: Dr. Ramzana Chang Principal MIPRS and Deputy Director IQAE, ISUM

Abstract:The accreditation process of Post-graduates program from PMDC and HEC with quality assurance was presented At Ibn-e-Sina University, Mirpurkhas 27th Annual symposium theme as “Quality Assurance and Enhancement in Newly Established Universities of Rural Areas of Pakistan. The detail of presentation is following:

The accreditation and quality assurance of postgraduate medical and health sciences education in Pakistan are primarily governed by the Higher Education Commission (HEC) and the Pakistan Medical and Dental Council (PMDC. HEC oversees academic standards, curricula, and research benchmarks, while PMDC focuses on clinical training, faculty qualifications, and professional competencies.

1. PG Program Accreditation by HEC

The Higher Education Commission (HEC) accredits postgraduate programs (MS, MPhil, PhD) to maintain and enhance academic quality in Pakistan. Institutions submit detailed documentation covering curriculum, faculty qualifications, research output, infrastructure, and student outcomes. HEC forms expert review panels to evaluate the programs through document review and on-site visits. Accreditation criteria include faculty expertise, curriculum relevance, research facilities, and student support services. Accreditation is granted for a limited period (usually 3-5 years) and requires periodic renewal. Accredited programs gain national recognition, eligibility for HEC funding, and assurance of quality education.

2. PG Program Accreditation from PMDC

PMDC accredits postgraduate medical and dental programs to ensure they meet professional and educational standards. Institutions must submit detailed program documentation covering curriculum, faculty qualifications, clinical training facilities, and research activities. PMDC forms expert evaluation panels to review submissions and conduct site inspections. Accreditation focuses on curriculum relevance, faculty expertise, clinical exposure, research opportunities, and infrastructure. Accredited programs comply with national and international medical education standards, ensuring graduates are competent practitioners. Accreditation is granted for a specific period and requires periodic renewal based on compliance and continuous improvement.

3. MS/MPhil Program Review by QAA - HEC

The Quality Assurance Agency (QAA) under HEC reviews MS and MPhil programs to maintain high academic standards. The review process includes evaluation of curriculum design, faculty qualifications, research facilities, supervision quality, and student outcomes. QAA teams conduct desk reviews and on-site visits, assessing teaching-learning processes, research output, and program management. The goal is to ensure compliance with HEC’s quality benchmarks, promote research excellence, and enhance postgraduate education. Feedback from reviews helps institutions improve curriculum, faculty development, and infrastructure. Successful review results in accreditation continuation and eligibility for HEC research grants and scholarships.

Assessment of Biomedical Waste Management Practices in a Rural Teaching Hospital of Sindh, Pakistan

Authors: Prof Dr. Zafar H Tanveer Principal MMC, Prof Dr. Farzana Majeed Director Research, Nusrat Sultan Administrator MMCH

Background: Improper biomedical waste management (BMWM) poses severe environmental and public health risks, especially in resource-limited rural settings. Teaching hospitals, as centers of training and service, must model best practices, yet rural facilities face unique challenges like infrastructure gaps, staff shortages, and low awareness. This study evaluates BMWM practices in a rural teaching hospital in Pakistan to identify gaps and recommend context-specific solutions.

Methods: A cross-sectional study conducted at a private hospital in rural area of Sindh. After ethical permission and informed consent Data will be collected through structured observations (using WHO checklist) of waste segregation, storage, transportation, and disposal. Questionnaire based interviews of 100 healthcare workers (doctors, nurses, technicians, and sanitary staff). Record review of waste generation logs and training sessions. Quantitative data was analyzed using SPSS (frequencies, percentages); qualitative responses was analyzed by thematically coded.

Results: Results revealed critical deficiencies in waste segregation, staff training, and infrastructure, with only 48% of healthcare workers demonstrating adequate knowledge of color coding systems. Segregation compliance was low (42%), and 65% reported inadequate personal protective equipment (PPE). Major challenges included insufficient training (78%) and lack of bins (62%). Urgent interventions targeted training, provision of segregated bins, and stakeholder engagement are recommended to mitigate risks. This study serves as a template for BMWM audits in rural South Asian hospitals.

Conclusion: Critical deficiencies exist in segregation, training, and infrastructure. Urgent interventions include staff training, provision of segregated bins, and stakeholder engagement. This study provides a template for BMWM audits in rural South Asian hospitals.

Keywords: Biomedical waste, rural health, hospital management, Pakistan, environmental health.

Role of Primary Health care Provider Intervention among Interactors of Rural Desert Communities by Health Poem on Diabetes at Gross Root level.

Authors: Dr Jewat Sunder, Dr Satti Jewat, Dr Tarique M Mian, Roma Reva Chand, Rahul Kheet, Sahil Bhagesh, Pirarthana Rewa Chand

Institution:

Sindh United (n) Developmental Educational Rural Society, Rotary Club Khipro Sunders, Sunders Interacts Rural Desert Clubs, Pakistan Academy of Family Physician.

Back Ground:

Educate the Brain by Intervention, Innovation, especially, Health Education because health education (prevention) is basic pillar in any community and health standards are the key component of the any community of world, the underdeveloped countries mainly facing such kind of the issues, Pakistan, ranks amongst the lowest countries according to the human development index of UNDP. Pakistan facing many health issues like Diabetes is going to be in big alarming situation, "Pakistan has one of the lowest investments in terms of education and health it spends 0.8 percent of its GDP on health and 1.8 percent on education," the United Nations said in a statement. So the simple Educational intervention may lead some improvements in the setup of health and education as well, by engage the community as well as school students by innovative activities to aware educate them about Diabetes causes to prevention.

Aim & Object: Promoting education, especially health education among higher secondary schools among students (interactors) in remote rural desert communities.

Material & Method: Descriptive Study: simple educational intervention among interactors (students) of higher secondary school with innovative health poems on diabetes and analysis of data collected by questionnaire.

Results: Sample size: 500 hundred children the results were

Out of 500 students, knowledge about diabetes and its prevention improved notably after the intervention. The highest awareness was seen regarding the disease mechanism (80.4%) and random blood sugar (67.4%). Moderate knowledge gains were observed for prevention (63.8%), role of glucose (63.8%), proteins (66.2%), and normal blood sugar values (61%). Lower awareness was noted for fasting blood sugar (38.6%) and specific dietary knowledge (55–61%). Overall, the intervention effectively enhanced students' understanding of diabetes, though certain areas such as fasting blood sugar and HbA1c require further emphasis.

Conclusion: out of 500 hundred children the results were Intervention and innovative activities sharing (Medical Education) in education system by health poems higher secondary school level develop a innovative atmosphere of education by which interactors (Students) learn with interest, that interest will bring change and that change improve our health standards and education as well by understanding about the Diabetes & prevention from Diabetes. These interactors (Students) can play major role in future.

Mapping the Mentorship Ecosystem: A Mixed-Methods Analysis of Undergraduate Mentoring Structures and Experiences at ISUM

Authors: Dr. Nosheen Zafar (Lecturer Medical Education) Dr. Taqdees Mariam (Lecturer Medical Education), Dr. Saif Sheikh (AP Oral Biology), Dr. Doha Rajar (Lecturer Community Dentistry), Prof Dr.Farzana Majeed (Director Research), Dr. Kiran Fatima (AP Medical Education)

Background: Mentoring is a cornerstone of undergraduate success, yet its implementation varies widely across institutions. At ISUM, a diverse rural university with commuter heavy demographics and diverse cultural environment, mentoring programs operate in silos across colleges, lacking centralized evaluation. This study addresses a critical institutional need to empirically assess mentoring efficacy, accessibility, and inclusivity to inform strategic resource allocation.

Objectives: To investigate and categorize existing formal/informal mentoring structures across ISUM's colleges. To examine student-reported impacts of mentoring on academic persistence, skill development, and sense of belonging. To develop evidence-based recommendations for a unified, equity-centered mentoring framework.

Methods: Design: Sequential explanatory mixed-methods. **Participants:** 100 Undergraduate students of ISUM. **Quantitative:** Stratified random sample of 100 undergraduates (ensuring representation across colleges, class years, and demographics). **Qualitative:** Purposeful subsample of 50 students (high/low mentoring engagement)

Data Collection: Through structured **Questionnaire:** Original instrument measuring mentoring access, experiences, and outcomes (see questionnaire). **Interviews/Focus Groups:** Exploring barriers, cultural dynamics, and institutional support needs. **Analysis:** Quantitative: Descriptive statistics, regression modeling (R software). Qualitative: Thematic analysis with NVivo

Results The study revealed that 62% of ISUM undergraduates accessed mentoring, with formal programs (35%) slightly outpacing informal relationships (27%). Mentored students demonstrated significantly higher academic persistence (85% vs. 65% for non-mentored peers), enhanced skill development (e.g., communication: 4.1/5 vs. 3.2/5), and stronger sense of belonging (3.8/5 vs. 3.2/5). Qualitative analysis uncovered key barriers: program fragmentation (70% of students unaware of college-specific mentoring), cultural mismatches (60% citing lack of shared background), time constraints for commuters (75% working ≥ 20 hours/week), and inadequate institutional support (e.g., untrained mentors, one-size-fits-all approaches).

Conclusion: This mixed-methods study confirms mentoring's critical role in supporting undergraduate success at ISUM, particularly in boosting persistence, skills, and belonging. However, systemic inequities including fragmented programming, cultural disconnects, and commuter-specific challenges limit access for many students. The proposed equity-centered mentoring framework (centralized coordination, culturally responsive matching, and flexible modalities) offers a roadmap to address these gaps, emphasizing that inclusive, accessible mentoring is essential for advancing educational equity in rural, diverse institutions.

Key Words Undergraduate mentoring, rural universities, equity-centered frameworks, academic persistence, sense of belonging, mixed-methods analysis, mentoring structures, student outcomes, cultural responsiveness, commuter student support.

Role of paramedics in facilitating hospital function

Syeda Urooj Fatima

Speech Therapist MMCH

Abstract:

Hospitals rely on multidisciplinary teamwork for effective service delivery, where paramedics form a vital link between doctors, nurses, and patients. They are often regarded as the backbone of hospital systems, facilitating both clinical and operational efficiency. Acting as a crucial support system, paramedics deliver services that directly impact patient safety, recovery, and satisfaction. From saving lives in emergencies to assisting in diagnostics, therapy, surgery, and transport, their presence is indispensable. In emergency settings, paramedics act as frontline responders and are the first point of hope, delivering lifesaving measures before a doctor's care begins. Their work forms the foundation of timely interventions and successful treatment outcomes in diagnostic labs and imaging centers, they provide reliable results that guide treatment. In therapy and rehabilitation, paramedics—ranging from physiotherapists to respiratory and dialysis technicians play a key role in patient recovery and long-term health. Within operation theatres, paramedics ensure sterility, assist anesthesiologists, and support surgeons throughout procedures. Importantly, paramedics bridge communication between healthcare providers and patients, ensuring clarity and confidence during care. Yet, despite their indispensable role, paramedics face challenges such as workload, resource shortages, and lack of recognition. This paper argues that hospitals cannot function efficiently without paramedics and advocates for greater recognition, structured training programs, and policy support to strengthen paramedical services within healthcare systems.

Students' satisfaction with Quality Services (Educational and non-educational facilities) of Ibn-e-Sina University Mirpurkhas

Authors: Dr. Ramzana Chang

Abstract

Background: Quality service in a university refers to how well the institution provides academic and non-academic support that fulfills or surpasses student expectations. It comprises two main dimensions. Educational services include effective teaching, qualified faculty, relevant curriculum, research opportunities, academic advising, access to learning resources, and fair evaluation methods. Non-educational services cover administrative efficiency, library and IT facilities, career counseling, extracurricular activities, hostel and transport services, health and safety measures, and an inclusive campus environment. Together, these elements contribute to a holistic student experience and play a critical role in student satisfaction, academic success, and overall institutional reputation.

Methodology: It was a cross-sectional descriptive survey design with a quantitative approach to measure students' level of satisfaction with both educational and non-educational services. Where appropriate, inferential statistics was used to identify factors influencing satisfaction

Results: Students across DPT, MBBS, and BDS highlight faculty support and academic quality as key strengths. DPT students (62%) find faculty approachable, slightly higher than MBBS/BDS (52%). Administrative professionalism is positively rated by 65% (DPT) and 52% (MBBS/BDS). While classrooms are well-equipped, library and lab dissatisfaction is high, especially in DPT. Real-world application is better perceived in MBBS/BDS, though over half of DPT students also agree. Cafeteria, hostel hygiene, and career support are common concerns across all programs. Students want improved infrastructure, extracurricular activities, and practical exposure. Online platforms show moderate satisfaction, but digital access and usability still need enhancement.

Conclusion: Overall, students across DPT, MBBS, and BDS appreciate the supportive faculty, academic quality, and classroom infrastructure. However, there are consistent concerns about library/lab facilities, cafeteria services, and the need for more practical exposure and career support. Addressing these areas can significantly enhance the student experience and satisfaction.

Prevalence of Blood Disorders in Children Under Five Years of Age at ISUM Laboratory, Mirpurkhas

Dr. Hyder Ali Pehilwani, Director Colleges ISUM, Lecturer Department of Pathology

Dr. Ramzana Chang, Principal MIPRS, Deputy Dean FAHRS

Background:

Blood disorders constitute a significant cause of morbidity in early childhood, particularly in low- and middle-income countries. Early identification is critical to reduce complications, disability, and mortality. However, there is limited regional data from Mirpurkhas, Sindh, to guide preventive and curative strategies.

Objective:

This study aimed to determine the prevalence and pattern of blood disorders among children under five years of age attending ISUM Laboratory, Mirpurkhas.

Methods:

A retrospective cross-sectional study was conducted using laboratory records from January 2023 to December 2024. Children under five years who underwent complete blood count and relevant hematological investigations were included. Data on age, gender, and type of disorder were analyzed. Descriptive statistics were applied to calculate prevalence and distribution patterns.

Results:

Out of 1,050 pediatric samples analyzed, 312 cases (29.7%) demonstrated hematological abnormalities. The most common disorder was iron deficiency anemia (18.4%), followed by thalassemia trait/major (5.6%), and hemolytic anemias (2.3%). Leukopenia and thrombocytopenia collectively accounted for 3.4% of cases, often associated with infectious conditions. Male children showed slightly higher prevalence (55%) compared to females (45%). Children aged 1–3 years were most affected, highlighting vulnerability during rapid growth and nutritional transition.

Conclusion:

Nearly one-third of under-five children tested at ISUM Laboratory exhibited blood disorders, predominantly nutritional anemia and hereditary conditions. Strengthening nutritional interventions, premarital screening, and community-level awareness in Mirpurkhas are essential to reduce the burden of pediatric hematological disorders.

Balancing Business and Family: Challenges and Enablers for Women Entrepreneurs in Sindh

Dr Aalia Aslam Bajwa, Principal MIST, Director Business Administration department

Abstract

Work-life balance has become an essential issue in entrepreneurship research, particularly in relation to women entrepreneurs in developing economies. This study investigates the work-life balance of women entrepreneurs in Sindh, Pakistan, where socio-cultural norms, gender roles, and economic constraints significantly shape entrepreneurial experiences. Women in this region often struggle to manage the dual responsibilities of business ownership and household obligations, leading to stress, time conflict, and compromised personal well-being. Using a qualitative approach supported by secondary data, this research explores the challenges women face, the coping strategies they adopt, and the enabling factors that contribute to balancing professional and personal demands. Findings suggest that patriarchal traditions, lack of institutional support, and limited access to resources remain major obstacles. However, supportive family structures, informal networks, flexible working arrangements, and increasing use of digital platforms serve as critical enablers. Education and entrepreneurial training are also identified as important drivers of resilience and adaptability among women entrepreneurs. The study emphasizes the importance of gender-sensitive policy interventions, targeted mentorship programs, and community awareness initiatives to improve work-life balance outcomes for women entrepreneurs in Sindh. By highlighting the intersection of cultural expectations and entrepreneurial realities, the research contributes to a deeper understanding of women's entrepreneurial journeys in a developing context. Furthermore, it underscores that supporting women in achieving work-life balance not only enhances their entrepreneurial success but also contributes to sustainable and inclusive economic development in the region.

FINAL PROFESSIONAL MBBS

Perceptions and Practices Regarding "Kangaroo Mother Care (KMC) For Preterm and Low Birth Weight Neonates

Authors: Mahoor Ahmed, Areeba Sajid, Saima Shehzadi, Adeena Bukhari

Supervisor : Prof. Dr. Syed Razi Muhammad, Prof. Dr. Hassan Memmon, Department of Pediatrics,
Muhammad Medical college, Mirpurkhas, Sindh

Abstract

Background: Preterm birth and low birth weight remain major contributors to neonatal morbidity and mortality in Pakistan. Kangaroo Mother Care (KMC)—skin-to-skin contact between mother and infant—is a simple, cost-effective, and evidence-based intervention that improves thermoregulation, breastfeeding, bonding, and survival. Despite its proven benefits, the extent of awareness and adoption in low-resource settings remains uncertain. **Objective:** To assess perceptions, awareness, and practices regarding KMC among mothers and caregivers of preterm and low birth weight infants in Pakistan.

Methodology: A descriptive cross-sectional study was conducted at Muhammad Medical College Hospital, Mirpurkhas, Sindh, Pakistan, between August-September 2025. A structured, trilingual questionnaire was administered to 70 participants, including parents of preterm/low-birth-weight infants and healthcare providers. Data were analyzed using IBM SPSS 2.0 with descriptive statistics. **Results:** Overall, 62.9% of participants had heard of KMC, yet only 37.1% had practiced in it. Encouragingly, 91.4% agreed that KMC should be integrated as a standard component of hospital care. Reported barriers included insufficient knowledge (84.3%), family refusal (42.9%), cultural concerns (38.6%), lack of privacy (37.1%), and limited staff availability (24.3%). Despite these challenges, respondents demonstrated strong willingness to adopt KMC if supported by education and institutional facilitation.

Conclusion: Awareness of KMC among mothers and caregivers is moderate, and its practice remains suboptimal despite broad recognition of its value. Scaling up maternal education, engaging families, and ensuring hospital-level support are essential to normalize KMC. Wider implementation of this life-saving intervention holds significant promise for reducing neonatal morbidity and mortality in Pakistan.

Keywords: Kangaroo Mother Care, Neonatal Care, Mortality, Practice

Effective Skill Lab Based Learning for Surgical Skills In Undergraduates

Authors: Ahmad Latif, M Bilal, Behzad Hassan, Jawed Hussain, Arsalan Ahmad Supervised: Prof Aijaz Memon, Prof S M Tahir

Abstract

Background:

Skill lab–based learning provides medical undergraduates with a structured and safe environment to acquire surgical skills, addressing the limitations of traditional apprenticeship-based teaching

Objectives:

To assess the effectiveness of skill lab–based learning in improving surgical skills, confidence, and preparedness among undergraduate medical students.

Methods:

Across-sectional survey was conducted among undergraduate medical students using a structured 22-item questionnaire covering demographics, perceptions, skill acquisition, curriculum, challenges, and confidence. Data were analyzed using descriptive statistics.

Results:

A total of 150 students participated. The majority reported that skill lab training was effective in improving surgical skills, with most indicating increased confidence compared to traditional learning. Suturing and knot tying were identified as the most improved skills. Students rated feedback and the learning environment positively; however, limited practice time and instructor availability were highlighted as key challenges. Most respondents agreed that skill lab training would enhance their surgical performance during internship and residency, and the majority expressed motivation to continue using the skill lab.

Conclusion:

Skill lab–based learning is an effective educational approach for enhancing surgical skills and confidence among undergraduates. Incorporating more structured sessions and addressing logistical barriers could further strengthen its role in preparing students for clinical surgical practice.

NPO Before and After Gastrointestinal Surgery

Authors: Hurair Ramzan, Danish Sajjad, Arqam Hussain, Muhammad Hammad, Muhammad Husnain.
Students of Final Year MBBS.

Supervisor: Prof. Dr. Syed Razi Muhammad, Prof. Dr. Aijaz Ahmed Memon, Muhammad Medical College, Mirpurkhas/ ISUM, Department of Surgery.

Abstract

Introduction: nothing per oral (NPO) before surgery has long been a standard practice in gastrointestinal (GI) procedures to minimize the risk of aspiration and perioperative complications. Traditionally, patients were kept fasting for prolonged periods before and after surgery. However, evidence now suggests that extended fasting may not only be unnecessary but also harmful, contributing to dehydration, electrolyte imbalance, patient discomfort, and delayed recovery. Modern enhanced recovery after surgery (ERAS) protocols advocate for shortened preoperative fasting, early initiation of clear fluids, and resumption of oral intake after surgery to promote better outcomes. This study aims to evaluate the rationale, benefits, and challenges of NPO practices before and after GI surgery, while exploring medical students' and clinicians' perceptions regarding fasting protocols.

Method: a cross-sectional, prospective study was conducted from May 25 to September 25, involving 105 practicing surgeons. 76 were between 36-45, 29 were above 55. 75 were male and 30 were female surgeons. 30 were from Mirpurkhas, 26 were from Lahore, 23 were from Multan, 14 were from Islamabad and 12 were from Hyderabad. 53 were general surgeon and 26 were upper GI surgeons. 72 had less than 5 years of experience and 62 were working in teaching hospitals.

A structured questionnaire was used to explore their understanding of traditional versus modern fasting guidelines, perceived benefits and risks of early oral intake, and the role of ERAS protocols. Both quantitative and qualitative data were analyzed to identify trends, knowledge gaps, and differences in perceptions.

Result: The results demonstrated that the majority of surgeons supported evidence-based perioperative fasting and feeding practices, with more than 90% endorsing early enteral nutrition, abbreviated fasting protocols, ERAS guideline adoption, and interdisciplinary collaboration. Traditional practices such as "NPO after midnight," waiting for bowel sounds before initiating diet, and mandatory clear liquid diets were largely rejected, although nearly one-third still adhered to the midnight fasting rule. While most surgeons favored allowing clear fluids up to two hours preoperatively and endorsed preoperative carbohydrate loading, a small proportion expressed concerns, and many remained neutral regarding aspiration risk. Overall, the findings indicate a strong shift toward modern, patient-centered fasting protocols, though institutional barriers and residual caution persist.

The majority of participants recognized the importance of preoperative fasting. Only items 13 & 14 included the commonly accepted surgical principles which were believed by a very small percentage of

our participating surgeons. There was no significant difference between practices of surgeons of different ages, experience, genders or practicing in different hospitals or cities.

Conclusion: The study concludes that while NPO remains a critical precaution in GI surgery, prolonged fasting is outdated and potentially harmful. Surgeons of all ages, experience and both genders are increasingly supportive of modern, evidence-based fasting protocols that balance patient safety with comfort and recovery. To improve clinical outcomes, hospitals should implement structured ERAS pathways, ensure proper education regarding perioperative nutrition, and encourage interdisciplinary collaboration among surgeons, anesthesiologists, and nursing staff. Adoption of these practices will reduce unnecessary patient discomfort, optimize recovery, and enhance overall surgical care.

Keywords: NPO, gastrointestinal surgery, fasting protocols, ERAS, perioperative care, early oral intake, patient outcomes

Fatty liver and its association with obesity and diabetes

Authors: Syed Muhammad Hasnain

Abstract

Background: fatty liver disease is one of the most common liver disorders worldwide and is closely linked with obesity and type 2 diabetes mellitus (t2dm). Both conditions contribute to its development, progression, and complications.

Objective: to determine the association of fatty liver with diabetes and obesity.

Methodology: a retrospective, cross-sectional study was carried out over one month, including 80 patients. Data on demographic details, presence of fatty liver (ultrasound-based), body mass index (BMI), and diabetic status were collected and analyzed.

Results: out of 80 patients, 52 (65%) had fatty liver. Fatty liver was more common in obese patients and in those with diabetes compared to non-obese and non-diabetic individuals.

Conclusion: fatty liver was highly prevalent among obese and diabetic patients, highlighting a strong association between these metabolic risk factors and fatty liver disease. Early screening and targeted lifestyle interventions are crucial to prevent disease progression and related complications.

Keywords: Fatty liver, Obesity, Diabetes mellitus, Cross-sectional study, Metabolic risk factors

Adult anemia at a glance: types, clues and causes

Authors: Rehan Ahmed, Muhammad Ahsan Abrar, Muhammad Usman Munir, Muhammad Amaan, Ismail Zulifqar

Supervisors: Prof Dr. Abdul Qadir khan, Dr. Ayesha Majeed, Dr. Faizan Qaiser, Dr. Saba

Abstract

Introduction: Anemia is not a disease in itself but a manifestation of various underlying pathological processes. It contributes to hypoxia and systemic complications that worsen patient outcomes. Iron-deficiency anemia (IDA) is the most common form, particularly in developing countries, and is associated with nutritional deficiencies, chronic blood loss, and poor healthcare access. This study was conducted to assess the frequency, clinical features and causes of anemia among adult patients admitted to Muhammad Medical College, Hospital (MMCH)

Method: A cross sectional study was conducted from May'25 to September'25 on a total of 103 adult patients with hemoglobin <10 g/dl. Clinical history, examination, and laboratory findings (CBC, peripheral smear, serum ferritin, stool examination, vitamin B12/folate) were recorded. Descriptive analysis was done using SPSS version 11.5.

Result: of 103 patients, 62 were female and 41 male. The mean age was 38 years, with the majority in the 30–49 years group. The average Hb was 8.1 g/dl (range 3.1–9.9). Hypochromic microcytic anemia was seen in 72 cases (70%), normocytic normochromic in 21 (20%), and macrocytic in 10 (10%). Iron deficiency anemia, mainly due to nutritional deficiency and chronic blood loss, was the leading cause (58 cases, 56%). Other causes included gastrointestinal blood loss (14%), peptic ulcer (9%), hookworm infestation (5%), Haemorrhoid (11%) and anemia of chronic disease (17%). The most common symptoms were fatigue (68%), pallor (60%), shortness of breath (53%), and pica (37%). Blood transfusion was required in 7 patients (6%)

Conclusion: Iron deficiency anemia remains the dominant type of anemia in adults at MMC. Nutritional deficiencies and unrecognized chronic blood loss are the primary contributors. Strengthening nutritional support, early detection, and treatment of underlying causes can reduce morbidity and mortality.

Keywords: Iron deficiency anemia, hypochromic microcytic, adults, clinical profile, MMCH.

Adverse drug reactions in elderly patients on multiple medication

Authors: M Hassan, M. Talha khurram, Umar Hassan, M Hassan Afzal, Hashim Alam

Background:

Adverse drug reactions (ADRs) are a significant concern in elderly patients taking multiple medications. Polypharmacy increases the risk of ADRs, which can impact quality of life and healthcare costs. This study aims to investigate ADR experiences, medication management practices, and their impact on quality of life in elderly patients.

Methodology:

This cross-sectional study used a questionnaire survey to collect data from 174 elderly patients (≥ 65 years) taking multiple medications in a hospital setting. The questionnaire gathered information on demographics, ADR experiences, medication management practices, and quality of life. Descriptive and inferential statistics were used to analyze the data.

Results:

The study found a significant prevalence of ADRs in elderly patients on multiple medication, with 22% of the 174 patients experiencing adverse effects, largely due to their own negligence. The types and severity of ADRs varied, and factors such as the number of medications and comorbidities were associated with increased risk. The study also identified challenges in medication management practices and a notable impact of ADRs on quality of life.

Conclusion:

This study highlights the need for improved medication safety and management strategies in elderly patients. The findings have implications for clinical practice and policy, and recommendations are made for enhancing medication management practices. Future research directions include developing targeted interventions to mitigate ADRs and improve quality of life for elderly patients on multiple medications.

Key Words: Adverse Reactions, Polypharmacy, Management, Safety, medication

Risk Factors for Cerebrovascular Accidents In Hospital-Admitted Patients: A Retrospective Analysis At MMCH

Authors: M Ismail, Zohaib Ramzan, Zafar Ullah, Shahbaz Amjad, Sher Ali, Students of Final Year MBBS.

Supervisor: Prof Dr Abdul Qadir khan , Prof Dr. Shaheen Mughal, Dr Waleed Arshad, Muhammad Medical College, Mirpurkhas, Department of Medicine

Abstract

Introduction: Cerebrovascular accident (CVA), or stroke, is a leading cause of morbidity and mortality. While traditional risk factors are well-established, the occurrence of CVA during an acute hospital stay for not identified condition poses a unique clinical challenge.

Objectives: The Objective study is to identify and characterize the specific risk factors contributing to CVA among inpatients at MMCH.

Methods: A Retrospective Study of 57 adult patients who suffered a CVA who admitted to MMCH. Data collected included demographics, risk factors (e.g., hypertension, diabetes), and acute, in-hospital events such as fever, and abnormal blood sugar and blood pressure levels. Descriptive statistics and frequency analysis were used to identify the most prevalent risk factors.

Results: Most of the patient cohort was from 61-70 years age group with a slight female predominance (54%). The most risk factors associated with CVA were **hypertension, present in 77% of cases**, followed by diabetes mellitus (44%) and hypercholesterolemia (42%). A past history of CVA was noted in 43% of patients. In-hospital data revealed frequent presentation with **elevated blood sugar (27%), and abnormal blood pressure readings**. The most common type of stroke was ischemic (44%), and the most frequent symptoms were hemiplegia, altered consciousness, and fever. Rural residence was also a notable finding (57%).

Conclusion: The findings suggest that CVA in the inpatient setting at MMCH is strongly linked to both pre-existing chronic diseases, with **hypertension being the most critical factor**, and acute Pathological disturbances during hospitalization. The high prevalence of uncontrolled blood pressure, hyperglycemia, and fever underscores the need for proactive and aggressive management of these conditions to prevent CVA during hospitalized patients. The results highlight the importance of targeted screening and monitoring protocols to mitigate acute risks and improve patient outcomes.

Keywords: CVA, Hypertension, Diabetes, Hypercholesterolemia, MMCH

Impact Of Mentorship On Career Choices In MBBS Students Of

Ibn-E-Sina University

Authors: M.Ali Amin, M. Mohib Zain, Danish Arif, Fareed Shah, Anshal Shah, Students of Final Year MBBS.

Supervised by: Prof. Dr. Syed Razi Muhammad, Prof Dr. SM Tahir (Department Of Surgery), Muhammad Medical College, Mirpurkhas, ISUM.

Background and objectives: Mentorship, a program initiated by Ibn-e-Sina University under supervision of Prof. Dr.Syed Razi Muhammad for the betterment of academic and ethical performance among students. Objectives of research were to identify mentorship impact on career choices among medical students of Ibn-e-Sina University.

Methodology: This was a cross-sectional descriptive study carried from September 2025 among MBBS students of IBN-E-SINA UNIVERSITY. All students (n=185) were approached. A close ended questionnaire was administered for collection of data. After telling the purpose of study data was entered and analysis was done by using SPSS version 25. This study was approved by ethical and research committee of IBN E SINA UNIVERSITY.

Results: 51% students said mentorship affected their career choices among which 36% students changed their career choices after mentorship. 68% students felt more confident to handle career challenges. 71% students said mentorship program helped us gain confidence in pursuing career speciality. 74% students supported Mentorship Program.

Conclusion: Communication between Mentors and Mentee was the important factor that played role in affecting career choices. Students were feeling more confident about pursuing their further career and they were more motivated to handle the upcoming challenges of their career choices after mentorship sessions.

Recommendations: Mentorship Program should be continued and the mentor mentee relation should be made much stronger as it is helping in remolding student's mindset and motivating them to progress and guiding them to pursuing right career for them, So, they can excel in upcoming challenges.

Relationship between Right Decision-Making Vs Regrets In Surgical Procedures Among Post Graduate Trainees

Authors: Aiza Malik, Mahnoor Ameer, Fakhra Siddique, Nisha Malik Final Year MBBS Students.

Supervisor: Prof. Dr. Syed Razi Muhammad, Prof. Dr. Aijaz Ahmed Memon Department of Surgery
Muhammad Medical College, Mirpurkhas/ISUM.

Background:

Decision making is a crucial yet challenging skill for postgraduate trainees often carried out under pressure and uncertainty. Such decisions may lead to regrets that influence confidence, mental health, and future clinical practice. The aim is to explore the link between surgical decision-making and regrets, with objectives to identify contributing factors, understand the nature of regrets, and assess their impact on professional growth.

Methodology: this study was a cross sectional descriptive study conducted from March to September 2025 among postgraduate trainees; n=71 postgraduate trainees were approached. The data was collected from a pre-designed form distributed among trainees and circulated on Google. The data was entered and analyzed by using SPSS version 22 and MS office 2023.

Results: Among n=71 postgraduates, 87% are MBBS and 13% are BDS. 59.2% are male while 40.8% are female trainees. 47.8% trainees are confident in making independent surgical decisions. 36.2% encounter difficulty in making surgical decisions particularly involving risks to patient outcomes. 30.4% consulted senior surgeon in making surgical decisions. 87.3% changed or delayed a surgical decision due to fear of complications. 71% trainees experienced regret in making a surgical decision. 41.2% trainees regret on the choice of surgical procedure. 55% suggest being more cautious in future surgical decision making.

Conclusion: The study reveals that the rate of decision making was significantly higher among male, age > 25, resident of 3rd year general surgery, & rate of regret was high in choice of surgical procedure but this lead to cautions in future practice. Stronger training and mentorship reduce the regret and build confident surgical decision makers

Keywords: Decision making style, Regret, Postgraduates.

Frequency of Hypertension in Diabetic Patients Presented In OPD & Medicine Ward At MMCH

Authors: Nazar Iqbal, Jawad Yasin, Mujeeb Sial, Husnain Yasin, , Musab Safdar. Students Of Final Year MBBS.

Supervisors: Prof. Dr Abdul Qadir Khan, Prof. Dr Khalid Shaikh, Dr. Nadeem Memon, Dr. Faizan Qaisar, Dr Sarwat Anjum. Muhammad Medical College, Mirpurkhas, Department of Medicine.

Abstract

Background: Hypertension is one of the most common comorbidities in patients with diabetes mellitus, and their coexistence greatly increases the risk of cardiovascular disease, nephropathy, and stroke. This study aimed to determine the frequency of hypertension and associated risk factors among diabetic patients.

Methods: A cross-sectional and retrospective study was conducted among 60 patients with diabetes mellitus attending OPD of Medicine Ward in the month September 2025. Data were collected through structured questionnaires, review of medical records, and blood pressure measurements. Hypertension was defined as blood pressure $\geq 140/90$ mmHg or current use of antihypertensive medications.

Results: Type 2 diabetes was most common in the 40–60 years age group, while Type 1 diabetes was confined to ≤ 25 years. Hypertension was strongly associated with the 40–60 and >60 years groups, and nearly half of Type 2 diabetics were hypertensive, whereas none with Type 1 diabetes were affected. Males showed higher frequency of both diabetes and hypertension compared to females. Hypertension was linked with longer diabetes duration, irregular physical activity, former smoking, positive family history, and higher BMI, particularly in overweight and obese patients.

Conclusion: This study demonstrates that Type 2 diabetes is most prevalent in middle-aged adults (40–60 years), with hypertension strongly associated with both middle and older age groups. Type 1 diabetes was confined to younger patients and showed no link with hypertension. Male diabetic patients were disproportionately affected, with significantly higher rates of hypertension compared to females. Hypertension correlated with longer diabetes duration, irregular physical activity, higher BMI, smoking history, and a positive family history of hypertension. Nearly half of Type 2 diabetics were hypertensive, while none of the Type 1 diabetics developed hypertension, underscoring the strong association between Type 2 diabetes and hypertension. The findings emphasize the critical role of lifestyle modification, weight management, and early risk-factor screening in reducing the burden of hypertension among diabetic patients.

Keywords: Diabetes mellitus, Hypertension, Frequency, Risk factors.

Attitude of an Underdeveloped Society On Mental Illness Of Women

Authors: Neelam Pervez, SaminaShahzadi, Anmool Fatima, Shagufta, Students of Final year MBBS

Co-author: Dr. Syed Razi Muhammad, Chancellor, IBN-E-SINA University, Mirpurkhas

Abstract:

Background: Mental illness remains a stigmatized subject in underdeveloped societies, reinforced by cultural norms, gender roles, and limited awareness. Women face added discrimination, as their concerns are often trivialized or linked with shame. Understanding attitudes toward women's mental illness is vital for designing interventions that reduce stigma and improve access to care.

Methodology: This cross-sectional descriptive study was conducted across Pakistan with 100 participants from diverse backgrounds. Data were collected through face-to-face interviews and social media using a closed-ended questionnaire in 4 languages (English, Urdu, Pushto, Sindhi). Variables assessed included gender, age, marital status, education, and mother tongue. Data were analyzed using SPSS Version 26. Ethical approval was obtained from the Ethical Committee of Muhammad Medical College ISU.

Results: Gender differences were significant. Females showed more progressive and scientific understanding than males. Age did not strongly influence attitudes, though participants under 20 and over 50 were slightly more progressive than those aged 21–50. Marital status was not a differentiating factor. Language background shaped views. Urdu speakers (31) showed the most progressive stance, followed by Sraiki (34), Pashto (41), and Sindhi (43). Education also influenced perceptions. Participants educated between matriculation and graduation (32), and graduates (34), showed more progressive attitudes than those with less education (44) or uneducated (50). Urdu speakers were least likely to associate shame with mental illness (29%), while Pashto speakers showed the highest tendency to stigmatize (3%).

Conclusion: The study highlights the role of gender, education, and language in shaping attitudes. Females, Urdu speakers, and the educated displayed more progressive views. These findings stress the need for culturally tailored awareness campaigns and integration of mental health education to reduce stigma.

Keywords: Underdeveloped Society, Women's health, Mental Illness, Cultural Influence, ISU.

Diagnosis of Acute Abdominal Conditions in Resource Limited Setting

Authors: Atiya Bilal¹, Ayesha Arshad¹, Areeba Riaz¹, Laiba Ibrahim¹, Students of final year MBBS,

Supervisor: Prof. Dr. Syed Razi Muhammad², Prof. Dr. Aijaz Memon²,

Prof. Dr. SM Tahir², Dr. Anum Asif²

²Professors, ³Department of Surgery, MMC, ISU Mirpurkhas

Abstract

Background: Acute abdomen is a medical condition characterized by the sudden onset of severe abdominal pain, which can result from various causes. The clinical presentation is often complex and urgent, and because it can resemble different conditions, accurate diagnosis and timely treatment can be particularly challenging. In resource limited setting, accurate diagnosis relies on thorough patient evaluation including a detailed medical history, physical examination, and lab tests and some basic imaging studies. Timely and appropriate treatment including both conservative and surgical options is crucial for optimizing outcomes. The aims of this study are to recognize and differentiate surgical from non-surgical acute abdominal conditions, to rely on clinical skills (History & Examination) as primary diagnostic tool, to use essential, low cost investigations effectively, and to ensure timely referral and management to reduce morbidity and mortality.

Methodology: This was a cross sectional descriptive study carried from January 2025 to July 2025 from MMC/ISU. After approval from ethical review board, the pretest questionnaire was distributed. The data was analyzed by excel.

Results: Out of 80 patients, Males 19 (24%), Females 61 (76%) participated in the study. Most Patients were of age between 30-50. A total of 30(38%) patients of acute cholecystitis presented with complaint of right upper quadrant pain with nausea and vomiting. 17 (21.25%) patients of acute appendicitis were presented with pain in right lower quadrant with fever and rebound tenderness. 6 (7.5%) female patients presented with diffuse lower abdomen pain were tested positive for pregnancy but ultrasound showed no findings and were concluded as ectopic pregnancy. 6 (7.5%) patients of intestinal obstruction presented with diffuse abdominal pain and distention. 9 (11.2%) female patients of Pelvic inflammatory disease presented with lower abdominal pain and tenderness. 2 (2.5%) patients of Typhoid perforation were presented with abdominal tenderness, guarding and rigidity with increased pulse. 6 (7%) patients of acute pancreatitis presented with epigastric pain and ultrasound showed hypo echoic pancreas. The cause of 4 patients (5%) was unknown.

Conclusion: All Patients were diagnosed on the basis of clinical skills, and only low cost investigations were done. The treatment was mainly conservative and surgeries were done after stabilizing and resuscitating the patients.

Key words: Acute abdominal conditions, Resource limited setting, MMC, Mirpurkhas

Frequency of Metabolic Dysfunction-Associated Fatty Liver Disease (MAFLD) In Obese Patients.

Authors: Muhammad Shazam, Hamza Tariq, Syed Hussnain Naqvi, Talh Zahid. Students of Final Year MBBS.

Supervisor: Prof. Dr. Abdul Qadir Khan, Department of Medicine, Muhammad Medical College, ISUM, Mirpurkhas.

Abstract

Introduction: Metabolic Dysfunction-Associated Fatty Liver Disease (MAFLD) is an emerging clinical entity that reflects the global burden of metabolic syndrome, with **Obesity** and **Type 2 Diabetes Mellitus (T2DM)** being the two most significant risk factors. Early recognition in high-risk populations is essential for preventing progression to advanced liver disease and cardiovascular complications.

Objectives: This study aimed to understand the relationship between MAFLD, T2DM, and obesity and to emphasize the importance of timely diagnosis and management.

Methodology: A Retrospective and Cross-Sectional Study was conducted on patients from the OPD and Medicine Ward of Muhammad Medical and Dental College/ISU. Data was collected via a structured questionnaire and analyzed using SPSS Version 22.

Results: Analysis of metabolic and lifestyle risk factors revealed clear stratification by age and gender.

- 50% of all diabetic cases were found in the 40-60 age group, which also showed a peak in Obesity family history (46.7%). Gender analysis showed
- 75% of High Blood Pressure cases were **Male**, while 56% of High Cholesterol cases were **Female**. A significant lifestyle gap was observed:
- 71.4% of Regular Exercisers were **Male**, compared to 62.5% of the Rarely Active group being **Female**. Overall risk strongly accrued with age, with the
- >60 group having the lowest rate of having none of the co-morbidities (16.7%).

Conclusion: MAFLD risk factors are highly stratified by age and gender. Screening efforts should primarily focus on the middle-aged cohort (40-60) for peak diabetes and metabolic risk. Furthermore, targeted lifestyle interventions are crucially needed for the Rarely Active female population to mitigate the associated cardio metabolic burden.

Keywords: MAFLD, Obesity, T2DM, Gender Differences, Physical Activity

Attitude of Medical Students Towards Pursuing A Career In Surgery

Authors: Ahsan Ali, Khizar Abbas, Muhammad, Gulzar Ahmad, Muhammad Usman Students Final Year MBBS,

Supervised: Prof. Dr.Syed Razi Muhammad, Prof. Dr. Aijaz Ahmad Memon, Prof. Dr. S.M. Tahir, Department of Surgery, MMC, ISUM)

Abstract

Objective: To investigate the Attitude of a Medical Student Pursuing a Surgical Career among the medical students of MMDC/ISU.

Background: The choice of a medical specialty is a pivotal decision in a medical student's career, shaping their future, professional path and influencing the distribution of healthcare services. Among the various specialties, surgery is often viewed as both prestigious and demanding, requiring a high level of dedication, technical skill, and resilience. Understanding the attitudes of students is essential for medical educators, policymakers, and healthcare institutions aiming to attract and retain motivated surgical professionals.

METHODOLOGY: A cross-sectional, prospective, real-time study was conducted from May 25 to September 25 on 112 students from MMDC/ISU. A structured questionnaire assessed demographics, motivations, deterrents, and mentorship. Both open and closed responses were analyzed. This study was approved by the Ethical and Research Committee of MMC (ISU) Mirpurkhas. Data entry and analysis were performed using SPSS version 22 and MS Office 2019.

Results: Among the students of MMDC/ISU (n=112), (55.36%) were male and (44.64%) female. The distribution across academic years showed the highest participation from Year 5 (29%) and Year 1 (26%). (59%) students have decided the specific specialty while (41%) have not decided yet. (77%) students think that surgery career is equally accessible for male and female while (33%) think it is male dominant field. (40.18%) students think it as highly rewarding and (22.32%) as moderately rewarding and about (33%) are neutral and about (4.46%) find it not appealing at all. Male students showed higher interest in general surgery (28%) followed by cardiothoracic surgery (11%) while female showed their interest in obstetrics and Gynecology (25%). Most common factors influencing interest for choosing surgery are passion for subject (24.11%), clinical exposure and experiences (23.21%) and surgical skills and techniques (20.54%). Major challenges of career in surgery includes intense academic and technical skills required (29.4%), long working hours (26.7%) and high stress and pressure (24.1%). (61%) students think that they would be willing to choose surgery if above challenges are reduced.

Conclusion: Students generally view surgery positively but express caution due to workload and lifestyle barriers, with females facing additional challenges. Improved mentorship, exposure, and residency opportunities, along with better work-life balance, may encourage more students to pursue surgical careers.

Keywords: Surgery, medical students, career choice, mentorship, attitudes

Whether Participants Answer Questionnaires Sincerely, If Not, Why

Authors: Maliha Jabbin, Umme Farwa, Muqqadas Aijaz, Shawal Sohail Students of Final Year MBBS.

Supervisor: Professor S. M. Tahir, Department of Surgery, MMC, ISUM.

Background: Questionnaires are widely used in healthcare, psychology, education, and social sciences. Their validity depends on honest responses, yet factors such as social desirability bias, misunderstandings, lack of motivation, lengthy formats, and difficult wording often result in insincere answers. These issues threaten the reliability of findings and highlight the need to study the extent and causes of insincerity.

Objectives

- To determine whether participants respond sincerely to questionnaires.
- To identify the main reasons for insincere responses.
- To propose strategies to enhance sincerity in future research.

Methodology: A cross-sectional descriptive study was conducted at Ibn-e-Sina University, Mirpurkhas, from August to September 2025. Using convenience sampling, 150 participants completed a structured questionnaire containing demographics, sincerity checks, and reasons for insincerity. Data were analyzed with descriptive statistics using SPSS version 20. Ethical approval was obtained from the university's committee.

Results

- 80.6% demonstrated a lack of careful and truthful responding.
- 28% gave random responses to finish quickly.
- 70% lacked motivation, 24% guessed answers, and 40.6% responded differently than they thought.
- Only 12.6% believed their answers reflected true opinions.

Reported reasons included social desirability (56%), unclear questions (50%), long questionnaires (45.3%), and lack of time (37.3%). Survey reliability was 91.3% (built-in validity check).

Conclusion: Insincere responding is common and arises from both questionnaire design (length, clarity) and participant-related factors (motivation, time, social desirability bias). Future research should focus on shorter, clearer instruments and strategies to motivate participants, improving the reliability of survey-based studies.

Keywords: Questionnaire sincerity, insincere responses, survey reliability, participant behavior

Low Coverage of HPV Vaccine Despite Proven Safety And Effectiveness

Authors: Marrium Bint I Iqbal, Mesoon Abdul Rasheed, Aqsa Batool, Wasfa Zahra. Students of Final Year MBBS.

Supervisor: Prof. Tahir Syed, Department of Surgery, MMC, ISUM.

Abstract

Background: HPV is a group of non-envelope, double-stranded DNA viruses. Infects epithelial cells of skin and mucous membranes. Sexually transmitted virus that infects the lower genital tract, mainly cervix (Transformation zone). Risk of CIN depends on HPV type, determined by DNA sequencing: 1.High-risk: HPV types 16, 18, 31 and 33 2.Low-risk: HPV types 6 and 11.

Pakistan has recently introduced the HPV vaccine as part of its public health strategy. The HPV vaccine works by exposing the immune system to virus-like particles (L1 protein) that trigger neutralizing antibody production, preventing HPV from infecting epithelial cells and thereby blocking warts and HPV-related cancers.

Objectives: This study aimed to identify the key factors contributing to the low clinical coverage of the HPV vaccine in Pakistan, with a focus on knowledge, attitudes, and beliefs among medical students.

Methods: A qualitative, cross-sectional descriptive study was conducted among 50 students at Muhammad Medical College, from first to final years. Data was collected using a structured, self-administered questionnaire and analyzed using SPSS version 22. A convenience sampling method was used to select participants.

Results: The findings revealed that 82% of participants were aware that HPV is a sexually transmitted infection, and 86% recognized its link to cervical cancer. A majority (90%) knew that the HPV vaccine helps prevent cancer. However, 90% of students identified lack of information as a major barrier to vaccine uptake. Additionally, 76% believed that concerns about safety and side effects discourage vaccination. Misconceptions were prevalent: 56% had heard that the vaccine may cause infertility, while 52% noted that some people consider it unsuitable for unmarried individuals.

Conclusions: Although awareness among medical students is relatively high, misconceptions and safety concerns are still widely recognized as barriers within the broader community. Lack of accurate information remains a major obstacle to HPV vaccine acceptance.

Recommendations: To improve HPV vaccine coverage in Pakistan, targeted awareness campaigns, school-based education, and outreach programs led by trusted healthcare professionals are essential. Addressing myths about infertility, marital status, and vaccine safety can significantly enhance public trust and vaccine uptake.

Awareness about ERAS (Enhanced Recovery after Surgery) Among Final Year medical Students and Junior Doctors of Ibn-E-Sina University, Mirpurkhas.

Authors: Hamza Farooq¹, Hamza Nawab¹, Luqman Khan¹, Izhar Kaleri¹, Ali Raza¹, Students of Final year MBBS

Supervisor: Prof Dr. Ijaz Ahmed Memon, Department of Surgery, Muhammad Medical College, Mirpurkhas, ISUM.

Abstract

Background: ERAS is an evidence-based perioperative protocol that reduces hospital stay and complications compared with conventional care, yet its global implementation remains inconsistent due to limited guidelines, poor multidisciplinary coordination, and resource constraints. Surveys show high familiarity (~87.9%) but low formal training (~42.8%), highlighting knowledge gaps. National and cross-sectional studies stress the need for structured education and institutional support. As future frontline providers, final-year medical students and junior doctors require adequate awareness and understanding to ensure effective ERAS implementation.

Objectives: This study aims to assess awareness and knowledge of ERAS protocols among final-year medical students and junior doctors, focusing on key components, sources of training, and perceived barriers, to inform curriculum development and educational interventions for better ERAS adoption and outcomes.

Methodology: This was an observational study; descriptive cross-sectional survey carried from August-September 2025 among final year students and junior doctors. All participants were approached after an informed verbal consent, a closed ended questionnaire was submitted for the collection of information, after approval from the ethical review board. The data was entered and analyzed by using SPSS version 26 and MS office19.

Results: A total of 106 participants were approached, of which 28% were male and 64.4% female; most were aged 22–26 years (83.9%) and 30–34 years (8.5%). Of these, 39.8% were MBBS final-year students, 39% junior doctors, and 13.6% others. Knowledge about ERAS was mainly gained through clinical rotations (38.1%), lectures (32.2%), workshops/conferences (17.8%), and online resources (4.2%), though only 47.7% had formal training. Most (77.1%) identified faster recovery, reduced complications, and shorter hospital stay as ERAS goals, while key components included early mobilization (37.6%), preoperative counseling (27.5%), reduced fasting/carbohydrate loading (17.4%), and multimodal pain control (17.4%). ERAS was considered very beneficial by 78.9%, with challenges cited as limited resources (39.4%), lack of collaboration (29.4%), staff unawareness (20.2%), and resistance from senior surgeons (11%). Most participants believed ERAS should be included in the curriculum (79.7%) and expressed interest in seminars/workshops (86.2%).

Conclusion: Most students and junior doctors were aware of ERAS and its benefits, but gaps in formal training and key knowledge remain. Integrating ERAS into curricula and offering structured workshops are essential to improve adoption and patient outcomes.

Key words: ERAS, ERAS protocols awareness, Medical students and Junior doctors.

Screening For Depression in Chronic Liver Disease Patients In Sindh

Authors: Wajeaha Jafar¹, Aiman Khalid, Fatima Abbasi ,Amna Shahzad, Students of Final year MBBS
Supervisor: Dr. A Qadir Khan , Dr. S.M. Tahir , Dr. Saleem Rashid, Dr. Faizan Qaiser, Dr Bharat Singh,
Department of Medicine, Muhammad Medical College, ISUM

Background: Chronic Liver Disease (CLD) is a growing health challenge in Sindh, largely driven by hepatitis B and C infections, metabolic syndrome, and alcohol-related causes. Beyond its physical complications, it also imposes a heavy psychological burden on patients. Depression is particularly common in this group, contributing to poor adherence to treatment, increased morbidity, and reduced quality of life. The Hospital Anxiety and Depression Scale – Depression subscale (HADS-D) is a simple, validated tool that minimizes overlap with physical symptoms using which we can easily screen in OPD settings & identify hidden depression and promote family support, timely psychiatric referral, thereby, addressing an important gap in patient care in Sindh.

Methodology: This is a cross-sectional study that was conducted in September 2025 at multiple institutions in Sindh. After approval from the ethical committee, informed consent was taken from the study participants (52 patients) . The data was collected using an interview-based Survey questionnaire and then analyzed and interpreted using SPSS ver25 and MS office 2019.

Results: Based on the analysis, **46.2%** of patients are in the borderline abnormality & **28.8%** have depression score, indicating a significant prevalence of depressive symptoms in chronic liver disease patients. Approximately, 58% of individuals reported having no suicidal thoughts while 33% had thoughts occasionally & 9% most of the times. A weak positive correlation ($r=0.165$, $p=0.243$) was found between duration of chronic liver disease & depression score

Conclusion: The Study Reveals A Significant Prevalence Of Depressive Symptoms Among Chronic Liver Disease Patients In Sindh, With 46.2% In The Borderline Abnormality Category And 28.8% Having A Depression. While A Weak Positive Correlation Was Found Between Disease Duration And Depression Score, The Findings Emphasize The Need For Screening And Psychiatric Referral In Managing These Patients To Address The Psychological Burden And Improve Patient Care.

Key words: Chronic liver disease, Depression, HADS-D, Sindh

Barriers to Assess Emergency Surgical Care in Rural Populations: Delay In Presentation And Outcomes

Author: Mahrukh, Sadia, Muqadas, Hafsa Maryam

Supervised: Prof Dr.Syed Razi Muhammad and Prof. Dr. Aijaz Ahmed Memon

Department of Surgery, Muhammad Medical College Mirpurkhas, ISUM

Abstract

Background: Rural populations often face significant barriers in accessing emergency surgical due to limited health infrastructure, long travel distances, Inadequate transportation, and shortage of trained specialists. These challenges frequently lead to delays in presentation, with patients often arriving at advanced stages of illness or complications. Socioeconomic constraints, lack of awareness and cultural factors further contribute to these delays, resulting in poorer outcomes with higher morbidity and mortality compared to urban populations.

METHODOLOGY: This cross-sectional descriptive study was conducted from March to September 2025 among rural residents (n=100). After obtaining ethical approval, a pre-tested open-ended questionnaire (21-item tool developed by Petted et al.) was administered for data collection. Data were entered and analyzed using SPSS version 22 and MS Office 2023.

Results: Out of 100 participants, 49% were male and 51% were female. A total of 84.4% reported experiencing delays in accessing surgical care. The primary reasons identified were financial constraints (38.9%), lack of transportation, cost of treatment, and distance from healthcare facilities (41.4%).

CONCLUSION: The study reveals that the major barriers to accessing emergency surgical care in rural populations are lack of transportation, high treatment costs, and distance to health care facilities.

KEY WORDS: Emergency surgical care, Rural population, Delay in presentation

Influence of Cultural Beliefs and Family Dynamics on Birth Spacing

Decisions among Women In Sindh, Pakistan

Authors: Vaneeza Imtiaz, Saima Khuda Bukhsh, Bibi Kulsoom and

Areeba Riaz (Final Year MBBS)

Supervisors: Prof Dr. Farzana Majeed, Prof Dr. Qamar Habib, Dr. Asma Jamshed

Abstract

Background: Birth spacing is a critical determinant of maternal and child health. In Sindh, women's decisions on spacing pregnancies are not solely medical but are shaped by cultural traditions, family structures, and social expectations. Limited local research highlights how beliefs and family influences affect reproductive choices.

Objective: To explore the role of cultural norms and family dynamics in shaping women's decisions regarding birth spacing in Sindh, Pakistan.

Methods: A descriptive cross-sectional study will be conducted among married women of reproductive age from rural areas of Sindh. Data will be collected using a pre-tested structured questionnaire covering socio-demographic profile, cultural perceptions, family influences, and reproductive behavior. Convenience sampling will be applied. Statistical analysis will assess associations between cultural/family factors and birth spacing practices.

Results revealed that 68% of participants agreed that having many children enhances family status, while 55% believed spacing contradicted cultural/religious values. Family dynamics further constrained autonomy: 45% reported mother-in-law influence on childbearing, and 38% felt major decisions were made by husbands or in-laws. Only 32% achieved optimal birth spacing (≥ 24 months), with logistic regression showing high family pressure (OR=2.1, $p < 0.05$) and low autonomy (OR=1.8, $p < 0.05$) as significant barriers. These findings highlight the need for culturally sensitive interventions targeting family engagement and women's empowerment to improve reproductive health outcomes.

Conclusion: Cultural beliefs and family dynamics play a pivotal role in birth spacing decisions of women in Sindh. Addressing these influences through community-based education and male involvement programs may improve maternal and child health outcomes.

Keywords: Birth spacing, cultural beliefs, family dynamics, women, Sindh, Pakistan

FOURTH PROFESSIONAL MBBS

Doctor Drain; What Future Physician Thinks?

Authors: Alayna Rasheed¹, Aifa Riaz¹, Students Of 4th Year MBBS

Supervisor: Prof. Dr. Ab Rajar² Muhammad Medical College¹, Department of Community Health Sciences Muhammad Medical College Mirpurkhas²

Abstract

Background: Brain Drain refers to the emigration of skilled Medical Professionals from their home country to another country in search of better opportunities, improved living conditions, or career advancements. This trend leads to a significant loss of skilled healthcare providers in the home country, often resulting in a weakened healthcare system and reduced access to medical services, especially in rural and underserved areas.

Objective: To Find out the views and perceptions of undergraduate medical & dental students, HOs & PGs, regarding increasing prevalence of brain drain in Pakistan.

Methodology: This was a cross-sectional descriptive study carried from May-August 2025 among students, HOs, PGs of MMDC & ISUM. All participants n=254 were approached, after verbal consent, a closed ended questionnaire was distributed, for collection of information regarding factors associated with brain drain among health professionals and comparison was done by gender, age, discipline, and residency. Data were entered and analyzed using SPSS version 26 and MS Office 2019.

Results:

Out of total 254 Participants, 52.6% Female & 47.4% Male students are reported to agree that brain drain is a serious issue in Pakistan's healthcare system. 50% PGs, 36.8% House officers & 23.5% Medical Students are reported to have considered emigrating for professional reasons. 60.1% Medical & 59.6% Dental Students are reported to agree that if conditions in Pakistan improve, they would prefer to stay. About 61.2% Dental & 47.8% Medical professionals are reported to agree that emigration is the only viable option for career progression.

Conclusion: Our study highlights a significant concern regarding brain drain among medical professionals. Key push factors include poor working conditions, low salaries, and lack of career growth. Pull factors involve better job prospects, higher incomes, and improved living standards abroad.

Key Words: Brain Drain, Emigration, Medical Professionals, Career Advancements, MMC

Treatment Modalities of Thyroid Related Orbitopathy

Authors: Alayna Rasheed ¹, Student Of 4th Year MBBS,

Supervisor: Rajesh Rathi., Muhammad Medical College, Department of Ophthalmology, Mirpurkhas²

Abstract

Aims:

The aim was to highlight recent advances in the treatment of thyroid eye disease.

Settings And Design:

Review article.

Materials And Methods:

Existing literature and the authors' experience was reviewed.

Results:

Thyroid ophthalmopathy is a disfiguring and vision-threatening complication of autoimmune thyroid disease that may develop or persist even in the setting of well-controlled systemic thyroid status. Treatment response can be difficult to predict, and optimized algorithms for disease management do not exist. Thyroid ophthalmopathy should be graded for both severity and disease activity before choosing a treatment modality for each patient. The severity of the disease may not correlate directly with the activity; medical treatment is most effective in active disease, and surgery is usually reserved for quiescent disease with persistent proptosis and /or eyelid changes.

Conclusions:

Intravenous pulsed corticosteroids, orbital radiotherapy, and orbital surgical techniques form the mainstay of current management of thyroid ophthalmopathy. Immunosuppressive and biologic agents may have a role in treating active disease although additional safety and efficacy studies are needed.

Keywords: Chemosis, optic neuropathy, strabismus, thyroid eye disease.

Retrobulbar Alcohol Injection: A Forgotten Therapy for Management of Painful Blind Eye

Authors: Aifa Riaz ¹, Rajesh Rathi ², Students of Muhammad Medical College, Department of Ophthalmology, Muhammad Medical College Mirpurkhas².

Abstract

Background: Painful blind eyes may result from absolute glaucoma, neovascular glaucoma, or corneal trauma. Retrobulbar alcohol injection, historically popular, offers analgesia by destroying ciliary nerve fibers but is now rarely used.

Purpose: To assess the effectiveness and safety of Retrobulbar alcohol injection in blind painful eyes.

Methods: This retrospective case series (2018–2024) included patients with blind painful eyes and no perception of light from eye department MMC. Using a 25-gauge retrobulbar needle, 2 ml of 2% xylocaine was followed by 2 ml of absolute alcohol. Supportive topical and systemic therapy was provided. Patients were followed for a mean of 18 months.

Results: Seven patients (mean age 72 ± 12.8 years; five females, two males) were treated. Indications included neovascular glaucoma (4), absolute glaucoma (2), and a healed perforated corneal ulcer with secondary endophthalmitis (1). Six patients (85.7%) achieved complete pain relief within one week and required no further analgesia. One patient failed two injections and ultimately underwent evisceration. Mild transient eyelid edema and conjunctival chemosis were the only complications.

Conclusion: Retrobulbar alcohol injection is a safe, minimally invasive, and effective option for pain relief in blind eyes when enucleation or evisceration is declined.

Keywords: Retrobulbar alcohol injection, Painful blind eye, Neovascular glaucoma, Absolute glaucoma

Pupilloplasty and Cataract Surgery in a Patient with Iris Coloboma and Cataract

Authors: Aimen Fakhur¹, (Student Of 4th Year MBBS)

Supervisor: Rajesh Rathi²

Abstract

Background:

Iris coloboma is a rare congenital anomaly, reported in about 0.5–0.7 per 10,000 live births, often associated with glare, photophobia, and reduced vision. When cataract coexists, functional and cosmetic challenges increase, requiring combined surgical management.

Purpose:

To report the surgical management and visual outcome of a patient with bilateral iris coloboma and cataract.

Methods:

A 35-year-old male presented with progressive decrease in visual acuity and severe glare. Preoperative evaluation included slit-lamp examination, intraocular pressure measurement, B-scan, and optical coherence tomography. Biometry guided intraocular lens selection. The right eye underwent phacoemulsification with posterior chamber intraocular lens implantation and Pupilloplasty using the Siepser sliding knot technique, Single-pass four-throw (SFT).

Results:

Preoperative best-corrected visual acuity (BCVA) was 6/36 in the right eye and 6/9 in the left. At one week, BCVA in the right eye improved to 6/9, with a near-round pupil and marked reduction in glare and halos. The cornea remained clear, the lens was well centered, and intraocular pressure was stable.

Conclusion:

Combined phacoemulsification with Pupilloplasty offers effective functional and cosmetic rehabilitation in iris coloboma with cataract. It improves visual quality and patient satisfaction, though technical expertise is essential.

Abbreviations: BCVA = best corrected visual acuity; PCIOL = posterior chamber intraocular lens; IOP = intraocular pressure; OCT = optical coherence tomography

Keywords: Iris coloboma, Pupilloplasty, Cataract surgery, Visual rehabilitation

Diagnostic Role of FNAC in Neck Swelling

**Authors: Aimen Fakhur¹, Lata Bai², Shagufta Abrar³, Bhawani Shanker³
MMDC & ISUM**

Abstract

Introduction

Fine needle aspiration cytology (FNAC) is a cost-effective, simple minimally invasive diagnostic tool. Recommended as first line investigation in Neck Swelling as it provide useful information to plan proper management. Ultrasound guidance enhances accuracy by reducing inadequate samples and enabling precise targeting of deep or non-palpable lesions.

Methodology:

This study was designed as a cross-sectional observational study conducted at Muhammad Medical College, Mirpurkhas, and My Diagnostic Lab, Mirpurkhas. The aim of this research was to observe and analyze specific health outcomes or variables within a defined population at a single point in time. Data collection was carried out by observing patients or individuals in the clinical and diagnostic settings of both Muhammad Medical College and My Diagnostic Lab. The study provided valuable insights into the prevalence of certain conditions, diagnostic trends, and potential correlations among different health factors, with the overall objective of enhancing understanding of the local healthcare landscape.

Participant: Study based on 60 patients with neck swelling from Feb 2025 to July 2025. FNAC was performed by using a 20 – 25 gauge needle with or without ultrasound guidance, Aspirated material was smeared on slides, fixed by alcohol fixation, and stained by using standard Hematoxylin and Eosin (H&E).

Objective: To assess the diagnostic accuracy and effectiveness of FNAC, including ultrasound-guided FNAC, in the evaluation of neck swellings.

Results: Total 60 cases were analyzed that had undergone FNAC. In 55% (33 cases) tuberculosis, 10% (6 case) Reactive hyperplasia, 8.33% (5 case) Abscess, 19.96% (12 cases) Thyroid Goiter, 1.6% (1 case) colloid cyst, 1.6% (1 case) Follicular Adenoma and 3.33% (2 case) Epidermal Inclusion cyst.

Conclusion: In neck swelling Tuberculosis is most common in our population.

Key Words: FNAC, Cytology, Neck Swellings, Cervical Lymphadenopathy

Knowledge and Practice Gap with Hand Hygiene Guidelines Among Healthcare Workers

“A Cross-Sectional Study in Rural Health Facilities in Sindh Pakistan”

Authors: Agha Aliza, Kaneez Fatima, Prarthna, Students of 4th Year MBBS

Supervisor: Asif Shah, A.B Rajar, Partab Puri, Palwasha, Amjad Azam, Aftab Ahmed
MMC, Department of Community Health Sciences

ABSTRACT

Background: Healthcare-associated infections (HCAIs) are a major cause of morbidity and mortality worldwide. The World Health Organization (WHO) estimates that 30–50% of HCAIs can be avoided through proper hand hygiene. Compliance among healthcare workers HCAIs often below 50%, with (LMICS). In Pakistan’s rural health facilities; supply shortages, insufficient training and weak monitoring. WHO’s “5 Moments of hand hygiene” is the global standard.

Objectives: To assess the knowledge–practice gap regarding WHO hand hygiene guidelines among HCAIs in rural Sindh. Objectives included measuring levels of knowledge and practice, identifying determinants of poor compliance, evaluating the knowledge–practice gap, and recommendations for hand hygiene compliance.

Methodology: A cross-sectional analytical design was employed with 120 HCAIs including (doctors, nurses, midwives, technicians, dispensers, and support staff). Data was collected using a questionnaire based on WHO’s “5 Moments of Hand Hygiene”. Knowledge was scored using correct responses to guideline-based questions, while practice was self-reported through frequency-based indicators. Chi-square tests were applied to identify associations, with $p < 0.05$ considered significant.

Results: Findings revealed optimal compliance: only 42% of HCAIs reported good hand hygiene practices despite relatively higher knowledge levels. A clear knowledge–practice gap was identified, where HCAIs demonstrated awareness but failed to consistently apply guidelines. Support staff and midwives exhibited the lowest compliance. Key barriers included inadequate training, lack of supplies, time constraints, and poor supervision.

Conclusion: The study underscores knowledge-practice gap in hand hygiene among HCAIs in rural Sindh. Addressing behavioral and systemic barriers through training, supply provision, and supportive supervision is essential to improve compliance and reducing HCAI risks in Pakistan.

Key words: Hand Hygiene, Healthcare Workers, MMC/ IBN-E-SINA UNIVERSITY

Risk Factors for Polycystic Ovary Syndrome among Women of Sindh In Pakistan: A Case-Control Study

Authors: Amna Khan, Kashish Kumari, Ishrat, (Students Of 4th Year MBBS)
Supervisor: Dr. Muhammad Asif Syed

Abstract

Background: polycystic ovary syndrome (PCOs) is the most common endocrine disorder among reproductive-age women, affecting 5–20% globally, with a higher prevalence (18–22%) in south Asia due to genetic, lifestyle, and environmental influences. PCOs is linked to menstrual irregularities, infertility, obesity, diabetes, and mental health disorders. In Pakistan, particularly Sindh, evidence remains limited on the combined role of reproductive, lifestyle, medical, and psychosocial factors.

Objective: to identify socio-demographic, reproductive, lifestyle, medical, and psychosocial risk factors associated with PCOs among women in Sindh.

Methodology: a case-control study was conducted at Muhammad medical college hospital on 150 women aged 15–30 years, including 75 PCOs cases (diagnosed via Rotterdam criteria) and 75 controls. Data were collected through structured questionnaires covering demographics, reproductive and gynecological history, lifestyle and behavioral factors, family and medical history, anthropometry, and psychological health. Analysis was performed using SPSS with chi-square and multivariate logistic regression.

Results: among 150 participants, the highest prevalence of PCOs occurred in women aged 25–30 years. Menstrual regularity was significantly higher in controls (85.3%) compared to cases (34.6%). Infertility rates were also higher in cases (18.6%) than controls (14.6%). Family history of PCOs was more common in cases (46.6% vs. 9.3%). Depression and anxiety were present in 53.3% of cases, while physical activity was lower (44%) compared to controls. Sleep disturbances were also more frequent among cases, while diabetes was slightly higher.

Conclusion: PCOs is multifactorial, with reproductive irregularities, family history, obesity, and poor lifestyle behaviors identified as strong determinants. Psychological stress and sleep disturbance emerged as important risk factors, while socioeconomic status and education showed no significant association.

Recommendations: awareness programs on menstrual irregularities and PCOs risk factors for young women. Lifestyle interventions: promote physical activity, healthy diet, and reduced screen time. Routine BMI and waist circumference monitoring at reproductive health clinics. Integrate mental health and sleep quality screening into PCOS care. Family-centered health education to address genetic and behavioral risk.

Keywords: PCOs, sleep disturbance, anxiety, infertility, lifestyle.

Determinants of unmet need for Family Planning among Married Women of Reproductive Age in Mirpurkhas, 2025

Authors: Maryam Fatima, Amna Talpur, Eman Khan, (Students Of 4th Year MBBS).

Supervisor: Muhammad Asif Shah, Muhammad Medical College, Department of Community Health Sciences Muhammad Medical College, Ibn-E-Sina University Mirpurkhas

Abstract

Background: Family planning (FP) reduces maternal and child mortality and supports reproductive rights. Despite availability, Pakistan has one of the highest unmet needs for FP in south Asia. Unmet need leads to unintended pregnancies, unsafe abortions and short birth interval .in rural areas, women face barriers such as low education, early marriage and poor access to services. Understanding factors associated with unmet need is critical to improving FP coverage and health outcomes.

Objective: To assess the prevalence and factors associated with unmet need for family planning among married women in rural Sindh.

Methodology: This is a cross-sectional study among the married women of reproductive age living in Mirpurkhas Sindh Pakistan. Random sampling technique was used. A questionnaire was structured for data collection. All the information was collected by face-to-face interviews. collected data was analyzed by frequencies and percentages (epi info).

Results: A total of 142 women participated in this study. According to our study ratio of unmet need for FP is comparatively lower (28%) than the met need (72%). Unmet need was relatively higher in age group of 18-24 years due to some socio-demographic and household factors such as: early marriage (26.5%), low parity (38.8%), low education levels (15%), lack of spousal support (21.8%), need for permission (27.7%), lack of knowledge (69.3%) and those who doubts about importance of FP are 50%.

Conclusion: still a large proportion of married women who wish to delay or stop childbearing have unmet need for FP, reflecting a major gap between fertility intentions and contraceptive use. Socio-demographic barriers like early marriage, low education, low parity. Household barriers such as low husband education, lack of spousal support, need for permission strongly reduce contraceptive uptake. Service-related barriers such as lack of nearby facility, poor access and knowledge gaps and doubts about its importance, further contributes to unmet need.

Recommendations: expand community-based FP services .design targeted educational campaigns to improve awareness of FP safety and benefits, especially for young, low-education couples. Promote male involvement through couple counselling sessions. Address cultural norms around early marriage.

Keywords: family planning, unmet need, reproductive age, education, mmc.

Perception and Knowledge of Undergraduate Medical Students Towards Bedside Teaching Techniques there, Issues, Strategies, & New Models

Author: Ali Nawaz, Abdul Wahab, Hassan Rafique, Ahmed Raza, (Students Of 4th Year Mbbs)

Supervisor: Prof. Dr. Ab Rajar, Muhammad Medical & Dental College Mirpurkhas/Ibn-e-Sina University, Department of Community Health Sciences.

Abstract:

Introduction: Direct patient-centered teaching at the bedside, integrating clinical skills, empathy, & knowledge is called bedside teaching. Bedside teaching has long been regarded as cornerstone of medical education, offering students the opportunity to directly observe, interact, & learn from real patients in a clinical setting. It not only enhances clinical reasoning, communication, & professionalism but also bridges the gap between theoretical knowledge & practical application.

Objectives: To assess the perception and knowledge towards bedside teaching techniques, issues, strategies and new models among undergraduates medical and dental students of Muhammad medical and dental college Mirpurkhas/ibn-e-Sina university to compare the views regarding bedside teaching with demographics features of undergraduates medical and dental students of ibn-e-Sina university /Muhammad medical and dental college Mirpurkhas

Methodology: A self-filled questionnaire based cross sectional retrospective study was conducted at ISU/MMDC Mirpurkhas, Sindh, Pakistan from April to august 2025. Frequency and percentage were calculated using excel and SPSS 22

Result: Out of total 196 undergraduate medical students surveyed, (**113 female 87 male**) the majority reported exposure to bedside teaching during their clinical rotation. Among MBBS students, **109(87%)** had experienced bedside teaching while **17(13%)** who had not.

Conclusion: Bedside teaching remains an irreplaceable component of medical education. Its justification lies in its unique ability to integrate knowledge, skills, and professionalism in authentic context bedside teaching remains vital, but perceptions reveal knowledge gaps in techniques and models: issues are universal, strategies and new models offer solutions

Key words: Bedside, techniques, issues, strategies, new models, ISUM/MMDC

Micro plastic Exposure and Its Effects on Human Health among Medical and Dental Students of MMDC/ISUM, Mirpurkhas

Authors: Kiran Kumari¹, Rubab Hussain¹, (Students of 4th Year MBBS).

Supervisor: Prof. Dr. Ab Rajar², Department of Community Health Sciences, MMDC/ISUM.

Abstract

Background: Micro plastics, which are minuscule plastic particles, have become widespread in the surroundings and their prospective repercussions on human well-being remain unclear. These tiny particles are found everywhere, including in drinking water, salt, seafood and even the atmosphere. Individuals may unknowingly consume anywhere from a few tens to millions of micro plastic particles every day and in severe cases, the amount of micro plastics consumed in a year can be equivalent to the weight of a small card. Thus, the aim of this study was to assess the level of micro plastic exposure and its effects on Medical and Dental students of MMDC/ISUM.

Methodology: This was a cross-sectional descriptive study carried from march-august 2025 among students of Muhammad medical and dental college Mirpurkhas /ISUM. All students n=257 were approached, after taking verbal consent a closed ended questionnaire pretested administered for collection of information. Data were entered and analyzed by using SPSS version 22, MS office 2019.

Results: Total n=257, male 113 (44%), female 144 (56%), urban 123(47.85%) and rural 134(52.14%). The higher level of micro plastic exposure was seen in female (9.52%), rural (19.52%) and (14.2%) in above 25 years of age. On average very low level of acute/short-term health effects are seen in male and female students that they had symptoms of gastrointestinal, respiratory, skin/allergic and neurological/cognitive symptoms. On average they show the high frequency of chronic/long term health effects like endocrine/metabolic, reproductive/hormonal changes and mental health concern symptoms.

Conclusion: This study highlights that notable exposure to micro plastic among MBBS, BDS and DPT students was potentially linked with the gastrointestinal, respiratory, dermatological and neurological symptoms and other systemic effects. Further laboratory-based investigations are recommended to confirm the causality and guide preventive strategies.

Key words: Prevalence, micro plastic exposure among medical and dental students, MMDC/ISUM.

A Holistic View of Mentoring: Undergraduate Students' Perceptions, Experiences, And Perceived Impact on Learning and Growth

Authors: Mehak¹, Iqra¹, Laiba Asghar¹, (Students Of 4th Year MBBS).

Supervisor: Prof. Dr. Ab Rajar², Muhammad Medical College, Department of Community Health Sciences, Muhammad Medical & Dental College/Ibn-E-Sina University Mirpurkhas²

Abstract

Background: Mentoring Session Are Structured Or Semi-Structured Interaction Between A Mentor And Mentees, Designed To Provide Guidance, Support, And Feedback In Academic, Professional And Personal Development. These Sessions May Include Discussions On Academic Progress, Career Planning, Ethical Conduct, And Psychosocial Well-Being. Thus, the Aim Of This Study Is To Assess holistic View Of Perceptions, Experiences, And Perceived Impact Of Mentoring By Learning And Growth among Students Of Muhammad Medical& Dental College/Ibn-E-Sina University, Mirpurkhas.

Methodology: A Cross-Sectional Descriptive Study Carried From April-September 2025 Among Students Of Muhammad Medical College/Ibn-E-Sina University, Mirpurkhas. After Taking Verbal Informed Consent, As Per Sample Size Total N=140were Approached, A Closed Ended Questionnaire Was Administered For Collection Of Information Regarding Perceptions, Experiences, And Perceived Impact On Learning And Growth By Mentoring Sessions, Comparing Them With Age, Gender, Year Of Study, Discipline, Residency And Permanent Residency. Data Were Entered And Analyzed By Using SPSS Version 26 & MS Office 2019.

Results:

Total 140 students participated,38.6%male,61.4%female,67.9%mbbs,19.3%bds,12.9% DPT. Students reported that the mentoring develops skills beyond academics. Majority of students are agreed that by mentoring academic performance improved: 76.06%mbbs, 86.4%bds and 72.2%dpt.students believes that after survive test, PTD helps to identify mistakes 48.5%mbbs, 39%bds and 25.9%dpt. Students agreed that the weekly assignments help to retain the topics 41.8%mbbs, 35.6%bds and 35.8% DPT. Students reported that they become more engaged in classes & clinical session after mentoring.

Conclusion: Our study reveals that the mentoring among undergraduate students boosts learning & growth. Students value mentorship for academic guidance, personal growth & professional development. Effective mentoring improves academics, engagement & post-graduation preparation.

Key words: Mentoring, students, MMDC/Ibn-e-Sina University

Parent Child Communication Gap Gen-z Children vs Gen-z Parents

Authors: Mahira Tahir Abro¹, Uroosa Ayaz Memon¹, Students Of 4th Year MBBS.

Supervisors: Prof. Dr. AB Rajar², Muhammad Medical College, Department of Community Health Sciences, Muhammad Medical & Dental College/ Ibn-e-Sina university Mirpurkhas

Abstract

Background: A generational gap in parent-child communication exists between Gen-z children and Gen-z parents. This gap is not only about age also values technology and communication styles. The aim of this study was evaluating difference between communication styles, key factors, generational gap and expectations among the parents and children at Muhammad Medical and Dental college/Ibn-e-Sina university.

Methodology: A cross-sectional descriptive study carried from march-august 2025 among students of Muhammad Medical and Dental college/Ibn e Sina university Mirpurkhas all students n=150 were approached, after taking verbal informed consent, predetermined, closed ended questionnaire was distributed for collection of information regarding generational gap, communication styles, technology and media, emotional connection and conflict and resolution, after telling the purpose of study. Data were entered and analyzed by using SPSS version 26 and ms office 2021.

Results: In this study, total out of 150, male 75 (50%), female 75 (50%), gen z 96(64%), Gen-z 54(36%). 39.6% of Gen-z participants disagreed while 79.1% of Gen-z agreed that they feel comfortable expressing themselves with the other generation. Regarding communication styles, 31.1% of Gen-z disagreed while 46.3% of Gen-z agreed that differences in style cause misunderstandings. Similarly, 59.3% of Gen-z agreed while 48.2% of Gen-z disagreed that tone and body language often create conflict. Technology was also a key factor, as 65.6% of Gen-z agreed while only 25.8% of Gen-z disagreed that it creates a communication gap, and 71.9% of Gen-z agreed compared to 12.5% of Gen-z who disagreed that it reduces quality time. Emotional needs were highlighted, with 47.9% of Gen-z feeling parents underestimate their emotions, while 61.1% of gen x felt children do not follow traditional family values. Finally, 58.3% of Gen-z agreed while only 20.3% of Gen-z disagreed that misunderstandings often lead to conflict, although 66.7% of Gen-z agreed and 29.6% of Gen-z disagreed that spending time together helps reduce these issues.

Conclusion: This study shows that the gap between Gen-z children and Gen-z parents is mainly due to different lifestyles and ways of communication. Gen z prefers quick digital talks, while Gen-z is more used to face-to-face discussions. These differences sometimes cause misunderstandings but not a lack of care. Both generations need patience and respect to understand each other. With small efforts from both sides, family bonds can become stronger and healthier.

Keywords: Parents & students, Prevalence of generation gap, Gen-z, Gen-z, MMDC/ISUM

Knowledge and Practice Gap among Medical Practitioners Regarding their own Health

Authors: Ume Kalsoom, Manahil Mehmood, Satabi Alies, Dua (Students Of 4th Year Mbbs)

Supervisor: Dr. Muhammad Asif Sayed, Muhammad Medical College, Department of Community Health Sciences, Muhammad Medical & Dental College/ Ibn-e-Sina university Mirpurkhas

Abstract

Background: Doctors often prioritize patient care while neglecting their own health. Despite having adequate knowledge of health guidelines, translation into practice remains poor, leading to burnout, delayed treatment, and reduced productivity.

Objectives: This study aimed to evaluate the knowledge–practice gap regarding personal health among medical practitioners and identify barriers contributing to self-neglect.

Methodology: A cross-sectional survey was conducted among 150 medical practitioners including house officers, medical officers, residents, and consultants from tertiary and secondary care hospitals. Data were collected using a structured questionnaire covering demographics, awareness of health guidelines, self-care practices, and barriers to seeking treatment. Descriptive statistics and chi-square tests were applied to assess knowledge, practices, and associations.

Results: Although most participants demonstrated good knowledge of personal health guidelines (sleep, exercise, diet, stress management), a significant gap was observed in actual practices. High levels of self-neglect, delayed medical consultation, and mental health concerns were reported. Institutional barriers such as heavy workload, lack of supportive policies, and stigma further contributed to poor self-care.

Conclusion: A considerable knowledge–practice gap exists among doctors regarding their own health. While they recognize the importance of self-care, practice is limited due to personal and institutional constraints. Lack of supportive institutional structure worsens the problem.

Recommendation: Interventions are needed at individual, institutional, and policy levels, including routine medical checkups for doctors, wellness workshops, flexible duty hours, counseling services, and formal health policies to support practitioners' well-being. For policy makers: develop formal policies for doctors' health as part of health system strengthening.

Keywords: knowledge, health, medical, practitioners.

Prevalence and Severity of Generalized Anxiety Disorder among Medical and Dental Students of Ibn-E-Sina University, Mirpurkhas

Authors: M. Salman¹, M. Shaheer¹, M. Sadiq¹, Hussain Nawaz¹, (Students Of 4th Year Mbbs).
Supervisor: Ab Rajar², Muhammad Medical College, Department of Community Health Sciences,
Muhammad Medical & Dental College/ Ibn-e-Sina university Mirpurkhas

Abstract

Background: Generalized anxiety disorder (GAD) is a mental health condition marked by persistent and excessive worry about everyday events and activities. The anxiety lasts for months and is difficult to control, even when there is little or no reason to worry. Common symptoms include restlessness, fatigue, difficulty concentrating, irritability, muscle tension, and sleep disturbances. Gad can significantly interfere with daily functioning, relationships, and overall well-being. Hence this study was aim to find out the prevalence of gad and its impact on undergraduate medical and dental students of Ibn-e-Sina\Mirpurkhas.

Methodology: this was a cross-sectional descriptive study carried from march-august 2025 among students of Muhammad Medical College Mirpurkhas. All students n=200 was approached, a closed ended questionnaire was administered for collection of information regarding sex, year, discipline, academic residence and permanent residency and their helping nature after telling the purpose of study. Data were entered and analyzed by using SPSS version 26 and ms office 2019.

Results: Total 200students participated, male 39(%), female 61(%). Out of 200 students, majority are normal while 18.24% of age 19-21 and 12.08% of 22-24 years having moderate level of generalized anxiety disorder. Discipline wise 17.44% of medical, 7.14 of dental and 7.14 of DPT are having moderate level of generalized anxiety disorder. More than half of the students are normal while 16.43% of students living in urban and 14.81% of students living in rural are experience moderate level of generalized anxiety disorder. More than half of the students are normal while 15.38% of hostler and 16.27% of non-hostler are having moderate level of gad. Majority of the students are normal while 19.71% of Sindh, 7.6% of Punjab and 6.25% of KPK are having moderate level of gad

Conclusion: This study reveals that the overall participants had been found without generalized anxiety disorder while 22-24 age group, female, urban, hostler have moderate levels of gad.

Key words: Generalized anxiety disorder (GAD), Medical & Dental students, MMDC\ISUM

Impact of Mobile-Phone Addiction on Mental Health In Medical Students: A Cross-Sectional Study.

Authors: Mujeeb Niaz¹, Muhammad Fraz¹, Muhammad Fawad Khan¹, Muhammad Saqlain Javid¹, (4th Year MBBS Students).

Supervisor: Prof. Dr Syed Asif², Muhammad Medical College, Department of Community Health Sciences, Muhammad Medical & Dental College/ Ibn-e-Sina university Mirpurkhas

Abstract

Background: Smartphones have become indispensable tools for modern students, yet their excessive use can lead to behavioral addiction, commonly known as **nomophobia**. Medical students, in particular, are considered a high-risk group due to heavy academic stress, long study hours, and reliance on digital resources, which can exacerbate dependency. Nomophobia is frequently associated with negative mental health outcomes, including anxiety, stress, poor sleep, and reduced academic performance. This study aimed to assess the prevalence of nomophobia and insomnia and examine the association between mobile phone addiction and the severity of sleep disturbances in undergraduate medical students.

Methodology: This was a **cross-sectional descriptive study** conducted among undergraduate medical students (n=150 inferred from data). The study employed two specific tools: the **nomophobia questionnaire** to measure the prevalence of mobile phone addiction and the **insomnia severity index (ISI)** to assess the prevalence and severity of insomnia. The data collected were used to examine the association between the two conditions.

Results: A substantial prevalence of mobile phone addiction was observed, with **88%** of participants classified as having moderate or severe nomophobia (n=89 moderate, n=43 severe). Furthermore, a significant portion of the student population also reported clinical sleep issues, with 62% of students experiencing moderate or severe insomnia (n=38 moderate, n=55 severe). The analysis of the cross-tabulated data confirmed a strong and **significant association** between the severity of nomophobia and the severity of insomnia, indicating that addiction to mobile phones is a key contributor to sleep disturbance among medical trainees.

Conclusion: Our study found a very high burden of mobile phone addiction and a correspondingly high prevalence of clinically significant insomnia among medical students. Trainees are facing a dual threat to their mental health and academic productivity due to the uncontrolled use of smartphones. We recommend that the university and health policymakers develop targeted interventions, such as digital literacy training and mental health support, to mitigate the negative impact of nomophobia and ensure the well-being and academic success of future doctors.

To Explore the Teacher's Perspectives on Mentoring Sessions for Medical and Dental Students: Perceptions, Practices, Impact" At Ibn-e-Sina University Mirpurkhas

Authors: Nimarta¹, Veena¹, Izna Muskan¹, Students Of 4th Year MBBS.

Supervisor: Prof. Dr. AB Rajar² Muhammad Medical College, Department of Community Health Sciences, Muhammad Medical & Dental College/ Ibn-e-Sina university Mirpurkhas

Abstract

Background: Mentoring sessions are structured or semi-structured interactions between a mentor and mentees, designed to provide guidance, support, and feedback in academic, professional, and personal development. These sessions may include discussions on academic progress, career planning, ethical conduct, and psychosocial well-being. This study was aimed to explore the teacher's perspectives on mentoring sessions for medical and dental students: perceptions, practices, impact" at Ibn-e-Sina university Mirpurkhas.

Methodology: a cross-sectional descriptive study carried from April September 2025 among teachers of Muhammad Medical College/Ibn-e-Sine University Mirpurkhas. All teachers were approached, 70 agreed to be part of study. After verbal consent the closed ended questionnaire was administered for collection of information regarding mentoring sessions and its consequences, by gender, age, teaching experience, designations. Data were entered and analyzed by using SPSS version 26 and MS office 2019.

Results: Total n=70 teachers participated, male=29(41.1%), female=41(58.6%), 75% (MBBS),83.3% (BDS), 57.1%(DPT) teachers reported that the mentoring develops skills beyond academics. Majority of teachers are agreed that by mentoring the students and teacher's relationships are improved. 60%(MBBS),50%(BDS),43%(DPT) teachers believes that mentoring helps students navigate stress & anxiety. 62.2%(MBBS),55.5%(BDS),57.1%(DPT)fostering comfort & openness between mentees & mentors. 57.7%(MBBS),38.8%(bds),71.4%(DPT)teachers believe that mentoring contributes in personal & professional development. 60%(MBBS),55.5%(BDS), %57.1%(DPT) teachers believe that academic performance of students improved by mentoring.60% (MBBS) 55.5% (BDS) 57.1%(DPT) teachers reported that students become more engaged in classes & clinical session after mentoring.

Conclusion: This study reveals that by mentoring the overall student's development, motivation, conflict resolving, professional development, career-related concerns, communication skills, confident have been improved.

Key words: Mentoring, faculty, MMDC/ISUM.

Unveiling Women Perceptions Of PCOS: Risk Factors, Symptoms, Impact On Health

Authors: Batool¹, Quratulain¹, Zukhruf¹, Students Of 4th Year Mbbs.

Supervisor: Prof. Dr. Ab Rajar, Muhammad Medical College¹, Department Of Community Health Sciences Muhammad Medical College Mirpurkhas²

Abstract

Background: polycystic ovary syndrome (pcos) is one of the most common endocrine disorders among women of reproductive age, with significant impacts on health, well-being, and fertility. In pakistan many women experience delays in diagnosis, lack of proper treatment, and limited access to information about the syndrome. This survey aims to assess the level of awareness, knowledge, and attitudes toward pcos among medical students of muhammad medical and dental college/ibn-e-sina university, mirpurkhas.

Methodology: a cross-sectional descriptive study was carried out from march-august 2025 among students of muhammad medical and dental college/ ibn e sina university mirpurkhas. All students after taking verbal consent total sample size n=150 were approached, a closed ended questionnaire was distributed regarding assessment of information regarding risk factors , symptoms and health impacts of pcos & comparing them with age, residence and marital status. Data were entered and analyzed by using spss version 26, ms office 19.

Results: in this study, out of 150, hostelers 95(63.3), non-hostelers 55(36.6%). Most respondents recognized hormonal imbalance as a major risk factor (96.8% hostellers, 89.9% non-hostellers), along with poor diet/lifestyle (78.9% vs. 81.8%), obesity (83.1% vs. 83.6%), family history (68.2% vs. 43.1%), and stress (84.2% vs. 89%), while misconceptions that pcos only affects overweight women persisted (42.1% vs. 36.3%). Lack of physical activity (83.1% vs. 83.6%) and environmental influences (74.7% vs. 76.3%) were widely acknowledged; 57.8% hostellers and 30.9% non-hostellers also linked birth control pills, while irregular eating habits were reported by 68.4% vs. 65.4%. Regarding menstrual problems, oligomenorrhea (30.5% vs. 34.5%) and menorrhagia (32.2% vs. 36.09%) were most common, followed by amenorrhea (13.6% vs. 9.09%), metrorrhagia (12.6% vs. 10.9%), and others (10.89% vs. 9.36%). Mild pre-diagnostic symptoms included excess hair, acne, oily skin, weight gain, thinning hair, dark patches, mood swings, cognitive issues, and cravings. Menstrual irregularities were 30%, hair growth changes were slight (40.7%), and 35.3% reported weight changes. Physical symptoms affected mood sometimes/often/always in 77.3% cases, and emotional sensitivity was noted occasionally to very frequently in 69.4%. Brain fog was common (49.4% sometimes/often), memory clarity issues were occasional in 62%, while 48% reported thinking clarity problems. In health-seeking behavior, 49.2% consulted doctors, while 48.7% delayed treatment. Awareness was moderate, with 23.3% learning from friends/relatives, 46% from internet, and 13.3% from doctors. 42% preferred social media for education, while 18.7% favored workshops, 18% healthcare talks.

Conclusion: it can be concluded that the hormonal imbalance, obesity, poor lifestyle, stress, and family history were identified as key pcos risk factors, the menstrual irregularities, mild symptoms, and psychological effects were identified. Awareness was insufficient, with reliance on informal sources, highlighting the need for structured education and timely medical consultation.

Key words: risk factors, symptoms and impact on health, pcos-medical students, mmdc.

Blepharoplasty: Functional And Cosmetic Outcomes

Authors: Shagufta Abrar¹, Rajesh Rathi²

**Students Of Muhammad Medical College¹, Ophthalmology Department, Muhammad Medical College
Mirpurkhas²**

Abstract

Background: Blepharoplasty is one of the most commonly performed oculoplastic surgeries, involving removal or repositioning of excess eyelid skin, fat, or muscle. While widely recognized for cosmetic rejuvenation, it also serves important functional roles in cases of dermatochalasis causing visual field obstruction or eyelid-related irritation.

Purpose: To review the indications, surgical technique, outcomes, and complications associated with blepharoplasty.

Methods: The procedure includes preoperative marking of the lid crease, administration of local anesthesia with or without sedation, and elliptical skin incision. Excess skin, fat, or muscle is excised or repositioned, followed by meticulous hemostasis and closure with fine sutures.

Results: Blepharoplasty provides significant functional improvement in patients with visual field compromise due to dermatochalasis and offers cosmetic enhancement for those with eyelid puffiness or tired appearance. The prognosis is generally excellent, with high patient satisfaction. Common complications include swelling, bruising, and asymmetry; less frequent risks are lagophthalmos, dry eyes, and over- or under-correction. Rare but serious complications include orbital hemorrhage and vision loss.

Conclusion: Blepharoplasty is a safe and effective procedure with dual functional and aesthetic benefits. Careful patient selection and surgical precision ensure high success rates and satisfaction.

Keywords: Blepharoplasty, dermatochalasis, eyelid surgery, oculoplastic surgery, cosmetic outcomes

Impact of Lecture Duration, Delivery Mode and Teaching Methods on the Level of Understanding and Interest of Students of Ibn-e-Sina University, Mirpurkhas

Authors: Shazeena Angel¹ Iqra Kakepoto¹ Kaif Ul Wara¹, (Students Of 4th Year Mbbs)

Supervisor: Prof. Dr. Ab Rajar², Muhammad Medical College, Department of Community Health Sciences, Muhammad Medical & Dental College/ Ibn-e-Sina university Mirpurkhas

Abstract

Background: Students understanding and interest are strongly influenced by lecture duration, delivery mode and teaching methods. Teaching effectiveness is shaped not only by the content delivered but also by how it is presented. Studying how these elements influence students is important for developing strategies that align teaching practice with modern learning needs. The aim of this study was to find which teaching strategies align with the interest and understanding of students of MMDC/Ibn e Sina university to enhance learning outcomes and engagement in higher education settings.

Methodology: A cross-sectional descriptive study was carried out from march-august 2025 among students of ibn -e-Sina university Mirpurkhas. After taking informed verbal consent and per sample size total n=200 students were approached, a predetermined, closed ended questionnaire was administered for collection of information regarding impact of lecture duration, delivery mode and teaching methodology and comparing them with sex, year, discipline and residence. Data was entered and analyzed by using SPSS version 26 and MS office 2019.

Results: total n=200, 44.5% male, 55.5 female, 57.5% urban, 22.5% rural, 45% hosteler, 55% non-hosteler, 51% MBBS, 24% bds, and 25% DPT students reported that lecture duration should neither be long nor short. 61% female, 55.1% male, 58.8% MBBS, 60.4% bds, 58% DPT students reported that lecture duration should be 30 to 40 minutes. 39.6% female, 38.2% male, 42.15% MBBS, 39.2% bds, 32% DPT 36.6% hosteler and 40.9% non-hosteler believe that interaction with teacher during lecture is most beneficial to them. 30.6% female, 32.58% male, 33.3% MBBS, 25% bds and 34% DPT students stated that the duration of the lecture has the most influence on their studies.

Conclusion: It can be concluded that the lecture duration, delivery mode and teaching methods have a direct influence on students' level of understanding and interest. Shorter and well- structured sessions tend to maintain attention more effectively than prolonged lectures, while interactive and blended approaches enhance motivation and learning outcomes compared to traditional methods. Adapting teaching strategies to balance duration with engaging delivery modes can improve comprehension, sustain interest, and ultimately strengthen the overall quality of education.

Key words: lecture duration, delivery mode, teaching methods, interest of medical students, MMDC.

Exploring Vaccine Hesitancy and Behavioral Determinants of Hepatitis B Vaccine Among MBBS Students in Ibn-e-Sina University, Mirpurkhas

Authors: Tawasal Fatima¹, Urooj Khokhar², Sadia³, (Students of 4th Year MBBS)
Supervisor: Dr. Syed Asif ², Muhammad Medical College, Department of Community Health Sciences, Muhammad Medical & Dental College/ Ibn-e-Sina university Mirpurkhas

Abstract

Background: Hepatitis B Is a Major Public Health Threat; **257 million** Globally Affected World Health Organization. Medical Students At Increased Occupational Risk Due to Needle Stick Injuries And Blood Exposure Thus, The Aim Of This Study Was Assess the Level of Hesitancy and Behavioral Determinants Of HBV Vaccine Among MBBS Students of Ibn-e-Sina University.

Methodology: This Was A Cross-Sectional Study Carried From **September – October 2025** Among Mbbs Students Of Ibn –E- Sina University. All Students **N=200** Were Approached, A Close Ended Questionnaire Was Based On Demographics and Training, Vaccine Status and Reason for Non-Completion and Knowledge. Data Was Analyzed By Descriptive Statistics (Frequencies, %).Cross Tabulation With Vaccination Status. Chi Square Test for Associations (**P<0.05**).

Results: Majority of Student Participants (**72.5%**) Had An Adequate Knowledge on Risk Factors For HBV, Its Mode of Transmissions.**145 Out Of 200 Participants** Had **Positive attitude** Towards Following Infection Control Guidelines, And Believe That All Students Should Take Vaccine However, Only (**25.5%**) Participants Had Completed **Three Doses Schedule** Of HBV Vaccination. Whereas, A Significant Number Of Students (**59%**) Has Been Exposed To Blood/Body Fluid via **Needle Stick Injuries** at Least Once Since They Started Their Training in the Health Facility

Conclusion: HBS vaccination coverage among medical students is **below optimal**. Behavioral determinants (forgetfulness, low risk perception, misinformation, and institutional barrier) strongly influence uptake. Knowledge is moderate, but hesitancy and constraints reduce completion rates. Misinformation exist but less common compared to practical barrier.

Key words: HBV vaccine, vaccine hesitancy, behavioral determinants, hepatitis-medical students, Ibn-e-Sina University

Assessment of Digital Gaming Habits And Associated Insomnia Symptoms Among Medical And Dental Students

Authors: M. Umer Ejaz, M. Ahmad Jamal, Sheraz Jutt, Students Of 4th Year Mbbs.

Supervisor: Prof. Dr. Muhammad Asif Shah Muhammad Medical College, Department of Community Health Sciences Muhammad Medical College Mirpurkhas

Abstract

Background: The academic pressures on medical students are well-documented contributors to sleep disturbances. Concurrently, digital device usage, particularly gaming, has become a prevalent leisure activity. This study aimed to assess the relationship between digital gaming habits and insomnia symptoms among medical and dental students.

Methodology: this cross-sectional descriptive study utilized data from 124 medical and dental students. A closed-ended questionnaire was used to collect information on demographics, self-reported sleeplessness (saq2), and gaming frequency (saq19). Data were analyzed to identify prevalence and correlations.

Results: the analysis indicates many students reported frequent sleeplessness (5-7 days). A correlation exists between gaming frequency and insomnia. Students gaming 'always' or 'often' also reported sleeplessness for three or more days per week. This pattern was more prominent in males, who were the most frequent gamers. High-arousal genres, such as battle royale and rpg, were popular. The frequent use of digital devices and these game genres likely disrupts natural sleep cycles. This link between screen time and delayed sleep onset is a notable finding.

Conclusion: a high percentage of students suffer from insomnia symptoms associated with gaming habits. Interventions promoting sleep hygiene and responsible digital habits are necessary to mitigate adverse health outcomes and risks to future patient care stemming from chronic sleep deprivation in this high-stress population.

Key words: insomnia, gaming, medical students, sleep, public health, screen time

Analyzing the Views Of Medical And Dental Faculties And Students On Curriculum Delivery: Annual Versus Modular Systems

Authors: Umber Zikria¹, Uroosa Israr¹, Zaib Ul Nisa Phul¹, Students Of 4th Year MBBS
Supervisor: AB Rajar² Muhammad Medical College, ²Department of Community Health Sciences,
Muhammad Medical And Dental College, Mirpurkhas.

Abstract

Background: This study aims to explore faculty and student perceptions of curriculum delivery systems in medical and dental education and their importance in aligning teaching strategies with learning needs, improving academic outcomes and supporting student well-being. Curriculum delivery plays a key role in shaping knowledge, enhancing skills and professional development. The annual system consists of year-long, subject-wise teaching with final exams, while the modular system features integrated, shorter modules with continuous assessments and early clinical exposure.

Methodology: this study employed a cross-sectional study design conducted from **march to august 2025** at **Muhammad medical and dental college, Mirpurkhas**. All faculty and student (**n = 257**) were approached and a closed-ended questionnaire was distributed to gather data on age, gender, discipline, year of study and teaching experience after explaining the study's purpose. Data were analyzed using **SPSS version 22** and **MS office 2019**.

Results: among the faculty and students of mmcdc about **44.44%** faculty members and **51.41%** students favored the annual system for deeper understanding and extended syllabus coverage. On the other hand, **72%** faculty members and **66%** of students preferred the modular system for its more organized teaching methods and showed support for its better integration of basic and clinical sciences. Even assessment methods also favored modular teaching that it provides enhanced clinical reasoning and exam readiness. Notably, a **hybrid model combining both annual and modular systems** was preferred by **50% faculty members and 58.33% students**, however **one-third disagreed**.

Conclusion: it can be concluded that this study reveals that the students and faculty members agreed that the modular system is much better in delivering and understanding the curriculum of basic and clinical health sciences. However, one-third of senior faculty disagreed with the modular system and showed preference for annual system.

Keywords: curriculum delivery, annual system, modular system, medical education, dental education, teaching methods, assessment, mmcdc

Over-The-Counter Antibiotics Sales: Knowledge, Attitude, And Practices (Kap) Of Pharmacists In Mirpurkhas

Authors: Ali Hasnain¹, Amjad Ali¹, Tanveer Ahmed¹, Ghafar Ali¹, 4th Year MBBS Students
Supervisor: AB Rajar², Muhammad Medical College¹, Department Of Community Health Sciences
Muhammad Medical College Mirpurkhas²

Abstract

Background: The irrational and unregulated sale of antibiotics without a prescription is a major driver of antimicrobial resistance (AMR), posing a serious global public health threat. In many developing regions, including Mirpurkhas, antibiotics are frequently dispensed over the counter (OTC), significantly increasing the risk of misuse. Pharmacists hold a critical gatekeeping role in promoting appropriate antibiotic use; therefore, understanding their existing/. The aim of this study was to assess the knowledge, attitude, and practices about over the counter antibiotics sales among pharmacist of Mirpurkhas.

Methodology: This was a cross-sectional study conducted to assess the KAP of pharmacists regarding the sale and risks of OTC antibiotics in Mirpurkhas.

Results: The study revealed significant deficiencies in knowledge and variable adherence to best practices: knowledge deficit: widespread poor knowledge was observed, with 68% of urban and 72% of rural pharmacists demonstrating poor knowledge regarding OTC antibiotic sales. Mixed attitudes: attitudes were not universally supportive of strict regulation. 52.56% of urban pharmacists displayed a negative attitude, while 53.12% of rural pharmacists maintained a neutral attitude regarding OTC antibiotic sales practices. Variable practice: practice levels ranged from poor to moderate. Urban settings reported slightly poorer practice (53.84%), while rural settings showed moderate practice (53.12%). Notably, pharmacists with the most experience (>10 years) showed the highest rate of poor practice (46.66%) compared to less experienced groups.

Conclusion: Male, female, older age group, chain and private pharmacist have moderate level of knowledge while less experience of pharmacist have poor knowledge. Almost half of male and female, older age group high level of experience pharmacist has poor attitude. Practice was good among male, young age group and medical store.

Key words: Over the counter antibiotic sale, pharmacists, KAP, MPK

Determinants of Home Vs. Facility-Based Deliveries In Rural Sindh

Authors: Alisha Tariq, Laiba Junejo (Students Of 4th Year MBBS)

Supervisor: Prof. Dr. Syed Muhammad Asif Shah. Department Of Community Health Sciences
Muhammad Medical College, Ibn-E-Sina University Mirpurkhas

Abstract:

Background: Maternal mortality remains a public health challenge in Pakistan. Home deliveries are still common in rural Sindh due to limited access to health facilities, Cultural traditions and family influence, financial constraints and transport barriers.

Evidence shows facility-based deliveries reduce maternal and neonatal morbidity and mortality. Understanding determinants of delivery place is critical to guide safe motherhood interventions.

Objective: To assess the determinants of home vs. facility-based deliveries among rural women in Sindh

Methodology: This is a Cross-sectional community-based survey among home vs Facility based deliveries in rural Sindh Pakistan. Random sampling technique was used, in total of 149 women were taken as a sample. information was collected by face-to-face interviews. Structured questionnaire was used as data collection tool. Information was dependent on place of delivery. collected data was analyzed by frequencies and percentages. (EPI info)

Results: The result showed that 52% of deliveries occurred at home with cultural norms, poverty (59.6%), lack of transport (73.5%), low paternal education (81%), lack of trust over facility, mothers age (<25=54%) (>35=62%), low ANC visit (85%) all having an impact. Home deliveries were associated with worse outcome for mother as well as baby causing low birth weight and preterm babies.

Conclusion: 52% of deliveries still occurred at home. Determinants of home delivery include Low education, poverty, no ANC, long distance, lack of transport, strong family influence, financial barriers, and cultural norms. Poor maternal and neonatal outcomes were more frequent in home deliveries. Facility deliveries were more common among women with higher education, higher income, ≥ 4 ANC visits, and supportive family decision-making.

Recommendation: To increase facility based deliveries report recommend expanding maternal health services in under-served rural areas and ensure affordable transport support schemes for pregnant women. Also Improve respectful maternity care in facilities to build trust. Start awareness campaigns on the safety of institutional deliveries with involvement Husband and mother in health education. Address cultural myths and traditions through community leaders. counseling for ANC and delivery planning.

Key words: Home based, facility based, financial barrier, education, transport, age.

Knowledge And Practice Gap With Hand Hygiene Guidelines Among Healthcare Workers “A Cross-Sectional Study In Rural Health Facilities In Sindh Pakistan 2025”

Authors: Agha Aliza, Kaneez Fatima, Prarthna (Students Of 4th Year Mbbs)

Supervisor: Prof. Dr. Muhammad Asif Shah, Muhammad Medical College, Department Of Community Health Sciences

Abstract

Background: Health care associated infections (HCAIs) are a major cause of morbidity and mortality worldwide. The World Health Organization estimates that 30–50% of HCAIs can be avoided through proper hand hygiene. Compliance among healthcare workers below 50%, with low- and middle-income countries (LMICS). In Pakistan’s rural health facilities; supply shortages, insufficient training and weak monitoring. WHO’s “5 moments of Hand hygiene” is the global standard.

Objectives: To assess the knowledge–practice gap regarding WHO hand hygiene guidelines among HCWS in rural Sindh. Objectives included measuring levels of knowledge and practice, identifying determinants of poor compliance, evaluating the knowledge–practice gap, and recommendations for hand hygiene.

Methodology: A cross-sectional analytical design was employed with 120 HCWS, including (doctors, nurses, midwives, technicians, dispensers, and support staff). Data was collected using a questionnaire based on WHO’s “5 moments of hand hygiene”. Knowledge was scored using correct responses to guideline-based questions, while practice was self-reported through frequency-based indicators. Chi-square tests were applied to identify associations, with $p < 0.05$ considered significant.

Results: Time constraints, poor supervision findings revealed optimal compliance: only 42% of HCWS reported good hand hygiene practices despite higher knowledge levels. A clear knowledge–practice gap was identified, where HCWS demonstrated awareness but failed to apply guidelines. Support staff and midwives exhibited the lowest compliance. Key barriers included inadequate training, lack of supplies.

Conclusion: The study underscores knowledge-practice gap in hand hygiene among HCWS in rural Sindh. Addressing behavioral and systemic barriers through training, supply provision, and supportive supervision is essential to improve compliance and reducing HCAI risks in Pakistan.

Recommendations: Compliance with WHO hand hygiene guidelines was suboptimal (42% poor practice). Training, knowledge and supply availability were key determinants. Support staff and the midwives are the most vulnerable groups.

Keywords: Hand hygiene, healthcare workers MMC/ibn-e-Sina University.

Unveiling Women Perceptions of PCOs: Risk Factors, Symptoms, Impact on Health

Authors: Batool¹, Quratulain¹, Zukhruf¹, Students Of 4th Year MBBS.

Supervisor: Prof. Dr. AB Rajar, Muhammad Medical College¹, Department of Community Health Sciences Muhammad Medical College Mirpurkhas²

Abstract

Background: Polycystic ovary syndrome (PCOs) is one of the most common endocrine disorders among women of reproductive age, with significant impacts on health, well-being, and fertility. In Pakistan many women experience delays in diagnosis, lack of proper treatment, and limited access to information about the syndrome. This survey aims to assess the level of awareness, knowledge, and attitudes toward PCOs among medical students of Muhammad medical and dental college/Ibn-e-Sina university, Mirpurkhas.

Methodology: A cross-sectional descriptive study was carried out from march-august 2025 among students of Muhammad medical and dental college / Ibn e Sina University Mirpurkhas. All students after taking verbal consent total sample size n=150 were approached, a closed ended questionnaire was distributed regarding assessment of information regarding risk factors, symptoms and health impacts of PCOS & comparing them with age, residence and marital status. Data were entered and analyzed by using SPSS version 26, MS office 19.

Results: In this study, out of 150, hostelers 95(63.3), non-hostelers 55(36.6%). Most respondents recognized hormonal imbalance as a major risk factor (96.8% hostellers, 89.9% non-hostellers), along with poor diet/lifestyle (78.9% vs. 81.8%), obesity (83.1% vs. 83.6%), family history (68.2% vs. 43.1%), and stress (84.2% vs. 89%), while misconceptions that PCOS only affects overweight women persisted (42.1% vs. 36.3%). Lack of physical activity (83.1% vs. 83.6%) and environmental influences (74.7% vs. 76.3%) were widely acknowledged; 57.8% hostellers and 30.9% non-hostellers also linked birth control pills, while irregular eating habits were reported by 68.4% vs. 65.4%. Regarding menstrual problems, oligomenorrhea (30.5% vs. 34.5%) and menorrhagia (32.2% vs. 36.09%) were most common, followed by amenorrhea (13.6% vs. 9.09%), metrorrhagia (12.6% vs. 10.9%), and others (10.89% vs. 9.36%).

Conclusion: It can be concluded that the hormonal imbalance, obesity, poor lifestyle, stress, and family history were identified as key PCOS risk factors, the menstrual irregularities, mild symptoms, and psychological effects were identified. Awareness was insufficient, with reliance on informal sources, highlighting the need for structured education and timely medical consultation.

Key words: Risk factors, symptoms and impact on health, PCOS, medical students, mmdc.

Impact Of Smartphone Use During Breastfeeding on Maternal Infant Bonding

Authors: Fiza, Khan, Tania, (Students Of 4th Year MBBS)

**Supervisor: Professor Asif Shah, Muhammad Medical College, Ibn-E-Sina University Mirpurkhas
Department of Community Health Science.**

Abstract

Background: Breastfeeding represents a crucial time for bonding between mother and infant, encouraged through eye contact, touch, and emotional interaction. The growing trend of smartphone usage during breastfeeding may distract mothers, decreasing responsiveness and interposed bonding.

Objective: To evaluate the association between smartphone usage during breastfeeding and maternal-infant bonding, and to ascertain the frequency and pattern of smartphone use during breastfeeding among mothers of infants.

Method: A cross-sectional analytical study was conducted with 100 mothers of infants (0–24 months) at Muhammad medical college & hospital. A structured questionnaire was used to collect data on socio-demographic factors, breastfeeding practices, smartphone usage patterns, and measures of bonding. Both smartphone use and bonding were categorized into ranges. Data were analyzed using descriptive statistics, chi-square test, and odds ratios to evaluate associations. A p-value < 0.05 was considered statistically significant.

Results: The study found that 55% of mothers had strong bonding and 45% had weak/moderate bonding. Strong bonding was more common among younger, educated mothers in joint families, while weaker bonding was linked to older age, lower education, and nuclear families. Brief smartphone use (<5 minutes) supported strong bonding, whereas no use or prolonged use was associated with weaker bonding. Education, family support, and balanced smartphone use were identified as key factors promoting healthy mother-child bonding.

Conclusion: Actively engaging in smartphone use while breast feeding may divert / misdirect maternal bonding toward mother - infant bonding.

Psychosocial Impact of Infertility Among Married Couples in Rural and Urban Areas of Sindh

Author: Fatima, Isbah Fayaz, Maryam Masood, (Students Of 4th Year MBBS)

Supervisor: Professor Asif Shah.

Abstract

Background: Infertility affects 10–15% of couples worldwide; in south Asia prevalence is 12–16%. In Pakistan, estimated ~21.9% couples face infertility, with higher psychosocial burden in rural areas. Cultural context: infertility often blamed on women, leading to stigma, marital conflict, and social isolation. Psychological consequences include depression, anxiety, hopelessness, and suicidal ideation. Social & marital impact: loss of status, pressure for remarriage, domestic violence.

Objectives: To evaluate the psychosocial impact of infertility among married couples in rural and urban Sindh.

Methods: A cross-sectional study, community-based survey conducted from 60 infertile couples. Convenience sampling from health facilities and the tools that are used in this study are; semi-structured questionnaire covering, socio-demographic, knowledge & perceptions, psychological impact (stress, depression, anxiety, hopelessness), social impact (stigma, gossip, pressure for remarriage), marital relationship impact (conflict, satisfaction, sexual relationship), coping mechanisms & support systems and analysis on excel; descriptive stats, chi-square test, $p < 0.05$ considered significant.

Results: The study has revealed that the psychosocial and social impact of infertility on couples included physical abuse, verbal, stigma, gossips, isolation, advise to remarry and depression, anxiety/stress, sleep disturbance and there is high level of despondence among couples who consider infertile. Reliance on religious/ spiritual practice, talking to spouse/ family/friends as well as suffered with social pressure due to childlessness, these were the main coping strategies adopted by couples to cope with their conditions.

Conclusion: Infertility has a substantial psychosocial burden in Sindh. Women, rural couples, and low educated families are the most vulnerable groups. Infertility leads to mental distress, stigma, marital strain, and poor social standing. Coping relies mainly on religion and spousal support.

Recommendations: Integrate psychosocial counseling into infertility management at health facilities. Awareness campaigns to reduce stigma and misconceptions about infertility. Training for healthcare providers on sensitive communication and mental health screening. Support groups for infertile couples to share experiences and coping strategies. Policies should ensure affordable access to infertility treatment & counseling in rural areas.

Barriers To Healthcare Access and Quality in Rural Sindh, Pakistan: A Comprehensive Analysis of Challenges and Potential Solutions

Authors: Khizra Fatima, Kanwal and Sidra.(Students of Fourth Year MBBS)

Supervisors: Prof Dr. Zafar H Tanveer, Physiology MMC-ISUM, Prof Dr. Farzana Majeed, Physiology MDC-ISUM, Dr. Kiran Fatima Medical Education MDC-ISUM

Abstract:

This study examines the multifaceted barriers to healthcare access and quality in rural Sindh, Pakistan, based on a survey of 100 respondents. The research identifies key challenges including geographical distance, financial constraints, gender disparities, and quality of care issues. Findings reveal that distance to healthcare facilities, transportation difficulties, and cost of treatment significantly hinder access to healthcare services. Gender barriers, particularly the lack of female healthcare providers, disproportionately affect women's healthcare seeking behavior. Quality concerns such as long waiting times, unavailability of medicines, and rude behavior of staff further discourage utilization of available services. The study also highlights community-proposed solutions including mobile clinics, increased female healthcare providers, free medicines, and health education programs. These findings provide valuable insights for policymakers and healthcare planners working to improve healthcare access and quality in rural Sindh, with implications for similar rural settings in low- and middle-income countries.

Keywords: Healthcare access, rural health, Sindh, Pakistan, healthcare barriers, gender disparities, health equity, healthcare quality, health services research, health policy

Micro plastic exposure and its effects on human health among medical and dental students of MMDC/ISU,Mirpurkhas

Authors: Kiran Kumari¹,Rubab Hussain¹, Students of 4th Year MBBS

Supervisor: Prof. Dr. AB Rajar², Muhammad Medical College¹, Department of Community Health Sciences Muhammad Medical College Mirpurkhas²

Abstract

Background: Microplastics, which are minuscule plastic particles, have become widespread in the surroundings and their prospective repercussions on human well-being remain unclear. These tiny particles are found everywhere, including in drinking water, salt, seafood and even the atmosphere. Individuals may unknowingly consume anywhere from a few tens to millions of microplastic particles every day and in severe cases, the amount of microplastics consumed in a year can be equivalent to the weight of a small card. Thus, the aim of this study was to assess the level of Microplastic exposure and its effects on Medical and dental Students of MMDC/ISU.

Methodology: This was a cross-sectional descriptive study carried from March-August 2025 among students of Muhammad Medical and dental College Mirpurkhas/ISU. All students n=257 were approached, after taking verbal consent a closed ended questionnaire pretested administered for collection of information. Data were entered and analyzed by using SPSS version 22, MS office 2019.

Results: Total N=257, Male 113 (44%), Female 144 (56%), Urban 123(47.85%) and Rural 134(52.14%). The higher level of microplastic exposure was seen in female(9.52%), rural(19.52%) and (14.2%) in above 25 years of age. On average very low level of acute/short term health effects are seen in male and female students that they had symptoms of Gastrointestinal, Respiratory, Skin/Allergic and Neurological/ cognitive symptoms. On average they show the high frequency of chronic/long term health effects like Endocrine/Metabolic, Reproductive/hormonal changes and mental health concern symptoms.

Conclusion: This study highlights that notable exposure to microplastic among MBBS, BDS and DPT students was potentially linked with the gastrointestinal, respiratory, dermatological and neurological symptoms and other systemic effects. Further laboratory-based investigations are recommended to confirm the causality and guide preventive strategies.

Key words: Prevalence, Microplastic Exposure Among Medical and Dental students, MMDC/ISU

Prevalence And Risk Factors Of Postpartum Depression In Rural Sindh

Authors: Kohinoor Khan¹, Safia Sheikh¹, Rimsha Batool¹, (Students Of 4th Year Mbbs)

Supervisor: Prof. Dr. Muhammad Asif Shah², Department Of Community Medicine², Muhammad Medical College, Mirpurkhas.

Abstract

Background: Postpartum Depression (PPD) is a major maternal mental health disorder with a global prevalence of 10–20%, and significantly higher rates in low- and middle-income countries, including Pakistan. PPD adversely affects maternal well-being, infant growth, mother child bonding, and family functioning. Despite its critical implications, maternal mental health remains under-recognized issue in rural Sindh, where socio-cultural and health system barriers heighten risks.

Objective: To determine the prevalence of postpartum depression (PPD) among mothers in rural Sindh, Pakistan, and to identify its association with socio demographic, obstetric, and psychosocial risk factors.

Methodology: A cross-sectional analytical study was conducted at Muhammad medical hospital, Mirpurkhas, including 122 mothers within six months postpartum data were collected using structured questionnaires covering socio demographic, obstetric, and psychosocial characteristics. The Edinburgh postnatal depression scale (EPDS) was applied with a cut-off score of ≥ 13 indicating depression. statistical analysis was performed using chi-square tests with significance set at $p < 0.05$.

Results: Among 122 mothers screened, 88 (72.1%) were positive for PPD ($EPDS \geq 13$). Prevalence was slightly higher among younger (< 25 years, 80.7%) and primiparous mothers (only one child, 76%), though age, parity, and pregnancy planning were not significantly associated ($p > 0.05$). Educational attainment showed a borderline association ($p = 0.05$), with higher rates among those with secondary or above education. Occupation, family income, household type, delivery mode, and obstetric complications showed no significant associations ($p > 0.05$). psychosocial factors, however, were important: prevalence was higher among mothers with poor social support (89.47%) and among those experiencing isolation or loneliness (often: 83.3%, sometimes: 82.0%, never: 58.3%), with isolation/loneliness emerging as a significant predictor ($\chi^2 = 8.58$; $p = 0.013$). financial difficulties, domestic violence, and spousal relationships did not show statistically significant associations.

Conclusion: PPD is highly prevalent in rural Sindh, affecting nearly three-quarters of postpartum mothers. While socio demographic and obstetric variables showed limited associations, psychosocial distress—particularly isolation and lack of social support—was strongly correlated with PPD. these findings underscore the urgent need for integrating maternal mental health screening into primary healthcare, training of lady health workers, promoting family involvement, and community interventions to address psychosocial risks.

Keywords: postpartum depression, maternal mental health, Edinburgh postnatal depression scale, rural Sindh, psychosocial risk factors, Pakistan.

Evaluation Of Self-Directed Learning Capability Among MBBS Students Of Ibn-E-Sina University

Authors: Mahnoor Halepoto, Um E Aiman, Sumaiya Jatoi (Students Of 4th Year MBBS),
Ibn-E-Sina, University, Mirpurkhas
Supervisor: Prof. Dr. Muhammad Asif Syed

Abstract

Background: Self-directed learning (SDL) is considered a cornerstone of lifelong learning in modern medical education. It allows students to take responsibility for identifying their own learning needs, setting goals, and evaluating outcomes independently. Globally, SDL has been emphasized as a vital competency for physicians to adapt to the continuously evolving field of medicine. However, in Pakistan, particularly at ibn-e-Sina university, little evidence exists regarding the readiness of undergraduate medical students to engage in SDL. Understanding their current capability is crucial for designing effective educational strategies.

Objective: This study aimed to evaluate SDL readiness among MBBS students, compare levels between pre-clinical and clinical years, identify perceived barriers and facilitators, and explore possible associations with academic performance.

Methodology: a cross-sectional study was conducted among 150 MBBS students across all academic years at bn-e-Sina university. The self-directed learning readiness scale (SDLRS) was used to assess students. Data were analyzed through descriptive statistics, while Anova was applied to compare readiness levels between pre-clinical and clinical groups.

Results: findings revealed that SDL scores varied significantly across study years. Clinical-year students showed higher readiness compared to pre-clinical students ($p < 0.05$). Major facilitators included group discussions, peer interaction, and easy access to educational technology. Conversely, barriers such as heavy reliance on traditional lectures, lack of structured guidance, and limited time availability were commonly reported.

Conclusion: the study emphasizes the urgent need to integrate structured opportunities for SDL within undergraduate curricula. By incorporating interactive and student-centered teaching strategies, as well as addressing identified barriers, institutions can enhance students' lifelong learning competencies. Further research is recommended to evaluate the long-term impact of targeted interventions and to strengthen SDL practices across different academic stages.

Keywords: self-directed learning (SDL); medical education; pre-clinical and clinical comparison; barriers; facilitators

A Holistic View Of Mentoring: Undergraduate Students' Perceptions, Experiences, And Perceived Impact On Learning And Growth

Authors: Mehak¹, Iqra¹, Laiba Asghar¹, Students Of 4th Year MBBS.

**Supervisor: AB Rajar², Asif Shah², Partab Puri², Palwashah², Amjad Azam², Aftab Ahmed²
Muhammad Medical College¹, Department Of Community Health Sciences Muhammad Medical College/Ibn-E-Sina University Mirpurkhas²**

Abstract

Background: mentoring session are structured or semi-structured interaction between a mentor and mentees, designed to provide guidance, support, and feedback in academic, professional and personal development. These sessions may include discussions on academic progress, career planning, ethical conduct, and psychosocial well-being. Thus, the aim of this study is to assess holistic view of perceptions, experiences, and perceived impact of mentoring by learning and growth among students of Muhammad medical& dental college/Ibn-e-Sina university. Mirpurkhas.

Methodology: a cross-sectional descriptive study carried from April-September 2025 among students of Muhammad medical college/Ibn-e-Sina university, Mirpurkhas. after taking verbal informed consent, as per sample size total n=140 were approached, a closed ended questionnaire was administered for collection of information regarding perceptions, experiences, and perceived impact on learning and growth by mentoring sessions, comparing them with age, gender, year of study discipline, residency and permanent residency. Data were entered and analyzed by using SPSS version 26 & MS office 2019.

Results:

total n=140 students participated, 38.6% male, 61.4% female, 67.9% mbbs, 19.3% bds, 12.9% dpt. students reported that the mentoring develops skills beyond academics. Majority of students are agreed that by mentoring academic performance improved: 76.06% mbbs, 86.4% bds and 72.2% dpt. students believe that after survive test & post test discussions (PTD) helps to identify mistakes 48.5% mbbs, 39% bds and 25.9% dpt. students agreed that the weekly assignments help to retain the topics 41.8% mbbs, 35.6% bds and 35.8% dpt. students reported that they become more engaged in classes & clinical session after mentoring.

Conclusion: our study reveals that the mentoring among undergraduate students boosts learning & growth. Students value mentorship for academic guidance, personal growth & professional development. Effective mentoring improves academics, engagement & post-graduation preparation.

Key words: mentoring, students, MMC/Ibn-e-Sina University

A Holistic View Of Mentoring: Undergraduate Students' Perceptions, Experiences, And Perceived Impact On Learning And Growth

Authors: Mehak¹, Iqra¹, Laiba Asghar¹, Students Of 4th Year MBBS.

**Supervisor: AB Rajar², Asif Shah², Partab Puri², Palwashah², Amjad Azam², Aftab Ahmed²
Muhammad Medical College¹, Department Of Community Health Sciences Muhammad Medical
College/Ibn-E-Sina University Mirpurkhas²**

Abstract

Background: mentoring session are structured or semi-structured interaction between a mentor and mentees, designed to provide guidance, support, and feedback in academic, professional and personal development. These sessions may include discussions on academic progress, career planning, ethical conduct, and psychosocial well-being. Thus, the aim of this study is to assess holistic view of perceptions, experiences, and perceived impact of mentoring by learning and growth among students of Muhammad medical& dental college/Ibn-e-Sina University. Mirpurkhas.

Methodology: a cross-sectional descriptive study carried from april-september 2025 among students of Muhammad medical college Ibn-e-Sina University. Mirpurkhas after taking verbal informed consent, as per sample size total n=140 were approached, a closed ended questionnaire was administered for collection of information regarding perceptions, experiences, and perceived impact on learning and growth by mentoring sessions, comparing them with age, gender, year of study, discipline, residency and permanent residency. Data were entered and analyzed by using SPSS version 26 & MS office 2019.

Results: total n=140 students participated, 38.6% male, 61.4% female 67.9% mbbs, 19.3% bds, 12.9% dpt. students reported that the mentoring develops skills beyond academics. Majority of students are agreed that by mentoring academic performance improved: 76.06% mbbs, 86.4% BDS and 72.2% dpt. students believes that after survive test & posttest discussions PTD helps to identify mistakes 48.5% mbbs, 39% bds and 25.9% dpt. students agreed that the weekly assignments help to retain the topics 41.8% mbbs, 35.6% bds and 35.8% dpt. students reported that they become more engaged in classes & clinical session after mentoring.

Conclusion: our study reveals that the mentoring among undergraduate students boosts learning & growth. Students value mentorship for academic guidance, personal growth & professional development. Effective mentoring improves academics, engagement & post-graduation preparation.

Key words: mentoring , students, mmc Ibn-e-Sina University. Mirpurkhas.

Assessing The Practice And Attitude Towards Social Responsibility Among Undergraduate Medical Students At Ibn-E-Sina University, Mpk.

Authors: Mohit Roshan¹, Ghulam Mustafa¹, Muhammad Zahir¹, Ali Hyder^{1,4} Th Year Mbbs Students.

Supervisor: Ab Rajar², Muhammad Medical College¹, Department Of Community Health Sciences
Muhammad Medical College Mirpurkhas²

Abstract

Background: traditional medical curricula often prioritize clinical knowledge and technical skills, with less emphasis on the development of social responsibility and community engagement. the aim of this study was to assess the current awareness, attitude, practice, and barriers towards social responsibility (sr) and medical social responsibility (msr) among undergraduate medical students at isu mirpurkhas.

Methodology: this was a **cross-sectional survey** carried from march 2025 to august 2025. The study participants were students of muhammad medical college/ibn-e-sina university (isu). A sample size of n=200 was calculated. A pretested, validated questionnaire was distributed for data collection, and verbal informed consent was taken. Data was entered and analyzed by using spss version 22 and ms office 2019.

Results: majority of the study participants, including 73.47% mbbs, 60.6% bds and 58.2% dpt students, had a positive attitude about the incorporation of social responsibility in the medical profession. An overwhelming majority 95.1% mbbs, 93.9% bds, 91.3% dpt considered understanding sr important for medical students. 94% of mbbs students agreed that medical social responsibility involves improving **community health**, not just treating individual patients. Furthermore, 89.5% mbbs, 90.9% bds, and 91.3% dpt participants endorsed that **volunteering** in community health initiatives should be an integral component of medical training. Regarding practice, 71.5% mbbs, 68.4% bds, and 65.2% dpt students reported frequently taking **initiative** in organizing or participating in community-benefiting activities.

Conclusion: this study reveals that the male, female & urban residents have significant knowledge about medical social responsibility. the positive attitude & practice were observed among male, female and mbbs about medical social responsibility outside clinical settings. Female, rural and dpt students reported that they have primary barrier like hesitation due to fear of not achieving intended outcome.

Key words: practice and attitude, social responsibility, students, mmhc/isu

Prevalence And Determinants Of Low Birth weight Among Newborns In Rural Sindh

Author: Muqaddas Asghar, Sahibzadi And Hifza Ali, Students Of 4th Year Mbbs

Supervisor: Professor Asif Shah

Abstract

Introduction: low birth weight (lbw: <2500 g) is a major public health issue. Globally, 15–20% of newborns are lbw, while in Pakistan the prevalence is ~19% (PDHS). lbw is associated with neonatal mortality, morbidity, impaired growth, cognitive development, and an increased risk of non-communicable diseases later in life. Determinants of lbw include socio- demographic, nutritional, obstetric, and environmental factors. Understanding local determinants in Sindh is critical for designing targeted interventions.

Objectives: the objective of this research is to assess the prevalence and determinants of low birth weight among newborns in Sindh.

Methodology: a case–control analytic study was conducted among lbw newborns in rural Sindh. The study included 120 participants, divided equally into 60 cases and 60 controls. Data were collected using a structured questionnaire covering socio- demographics, obstetric history, nutrition, antenatal care (ANC), environmental exposures, and neonatal outcomes. The outcome variable was birth weight (<2500g=lbw; ≥2500g=normal). Descriptive statistics (frequencies, percentages) and bivariate analysis (chi-square test, $p < 0.05$) were applied.

Results: a total of 120 mothers of newborns participated in this study. Significant associations with lbw were observed in mothers with poor nutrition (fewer meals and irregular iron /folic acid supplementation). Lbw was relatively higher among mothers aged <20 years. Maternal anemia was markedly higher in the lbw group. Exposure to second-hand smoke and heavy physical labor also contributed as risk factors. Lower frequency of ANC visits, shorter birth intervals, and higher parity were more common among mothers of lbw newborns. Neonatal complications such as preterm birth (75%), neonatal asphyxia (25%), and sepsis (10%), and NICU admissions (83.3%) were more frequent among lbw infants.

Conclusions: this study highlights that maternal age <20 years , inadequate ANC visits, exposure to second-hand smoke, maternal complications(anemia, hypertension, diabetes), poor maternal nutrition, irregular iron/folic acid supplementation, and low socioeconomic status are key determinants of lbw in rural Sindh.

Recommendations:

Interventions focused on improving maternal nutrition, socio-economic conditions, prenatal care, and health education are essential to reduce the incidence of lbw and improve neonatal outcomes in rural Sindh.

**To Explore The Teacher's Perspectives On Mentoring Sessions For Medical And Dental Students:
Perceptions, Practices, Impact" At Ibn-E-Sina University Mirpurkhas**

Authors: Nimarta¹, Veena¹, Izna Muskan¹, Students Of 4th Year MBBS.

**Supervisors: AB Rajar²asif Shah²partab Puri²palwashah²amjad Azam²aftab Ahmed² Muhammad
Medical College/Ibn -E-Sina University¹, Department Of Community Health Sciences Muhammad
Medical College/Ibn -E-Sina University Mirpurkhas²**

Abstract

Background: mentoring sessions are structured or semi-structured interactions between a mentor and mentees, designed to provide guidance, support, and feedback in academic, professional, and personal development. These sessions may include discussions on academic progress, career planning, ethical conduct, and psychosocial well-being. This study was aimed to explore the teacher's perspectives on mentoring sessions for medical and dental students: perceptions, practices, impact" at ibn-e-sina university Mirpurkhas

Methodology: a cross-sectional descriptive study carried from april-september 2025 among teachers of Muhammad medical college/ Ibn-e-Sina University Mirpurkhas. All teachers were approached, 70 agreed to be part of study. After verbal consent the closed ended questionnaire was administered for collection of information regarding mentoring sessions and its consequences, by gender, age, teaching experience, designations. Data were entered and analyzed by using SPSS version 26 and MS office 2019.

Results: total n=70 teachers participated, male=29(41.1%), female=41(58.6%), 75% (MBBS), 83.3% (BDS), 57.1% (DPT) teachers reported that the mentoring develops skills beyond academics. Majority of teachers are agreed that by mentoring the students and teacher's relationships are improved. 60% (MBBS), 50%(BDS), 43%(DPT) teachers believes that mentoring helps students navigate stress & anxiety. 62.2% (MBBS), 55.5% (BDS), 57.1%(DPT) fostering comfort openness between mentees & mentors. 57.7% (MBBS), 38.8% (BDS), 71.4%(DPT) teachers believe that mentoring contributes in personal & professional development. 60% (MBBS), 55.5% (BDS), 57.1% (DPT) teachers believe that academic performance of students improved by mentoring. 60%(MBBS) 55.5% (BDS) 57.1% (DPT) teachers reported that students become more engaged in classes & clinical session after mentoring.

Conclusion: this study reveals that by mentoring the overall student's development ,motivation, conflict resolving, professional development, career-related concerns, communication skills, confident have been improved

Key words: mentoring, faculty, MMDC/ ISU

Association Between Covid-19 Vaccination misinformation Exposure On Social Media And Vaccine refusal: A Case-Control Study

Author: Sobia, Nimra, Samar, Students Of Muhammad Medical And Dental College¹, Department Of Community Health

Supervisor: Prof. Dr. Asif Shah Sciences Muhammad Medical College And Dental College, Ibn E Sina University Mirpurkhas²

Abstract

Background: the Covid 19 pandemic has posed unprecedented global challenges to public health system, economies and societies. Vaccination has been one of the most effective tool in controlling the spread of covid-19 and reducing the severity and mortality associated with the disease. However, the success of vaccination campaigns has been significantly hindered by widespread vaccine hesitancy and refusal, often fueled by misinformation disseminated through digital platforms, particularly by social media.

Objective: to evaluate the role of misinformation and behavioral determinants in covid-19 vaccine refusal among students of MMDC/ ISU

Methodology: this study employed a case control study design from March to august 2025 among the medical students of Muhammad medical and dental college Mirpurkhas. All students (n=150) were approached, a standardized questionnaire was developed and distributed to collect information regarding age, gender, education level, residency and knowledge, perception and attitudes towards covid-19 and its vaccination data were entered and analyzed by using SPSS version (20).

Results: among the 150-participants, vaccine refusal was higher among those aged 21-30(64%) and those with lower educational levels, particularly individuals with undergraduate (77.4%) education. Rural resident (38.7%) exhibited a higher refusal rate than their urban (37.3%) and semi-urban (24%) counterparts. Refuses were more likely to rely on social media as their primary information source, believe misinformation (e.g., vaccine- induced infertility), and express mistrust in the government and health system. Positive predictors of vaccine acceptance included a strong belief in vaccine safety (80%) and effectiveness (90.7%), prior discussion with health care providers (69.3%), and trust in health authorities (77.3%).

Conclusion: covid-19 vaccine refusal is strongly linked to misinformation, mistrust and social influence. Education and healthcare provider counselling are protective factors.

Key words: covid-19 vaccine, acceptance, refusal and misinformation, social media, mmhc students.

Assessment Of Medication Adherence Among Hypertensive Patients And Associated Factors In Rural Health Facilities Of Sindh, Pakistan

Authors: Rashid Rasheed, Mir Hassan Ali, Asad Khan, Students Of 4th Year Mbbs.

Supervisor: Prof. Syed Muhammad Asif Shah. Muhammad Medical College¹,
Department Of Community Health Sciences.

Background: Hypertension is a leading cause of morbidity and mortality worldwide. In Pakistan, it affects approximately 18% of the population, with rural areas facing additional barriers due to low income, poor access to healthcare, and limited awareness. Medication adherence is crucial in preventing complications, yet little is known about adherence patterns and influencing factors among rural patients in Sindh.

Methodology: Study Design: Cross-sectional study. Study Setting: Rural health facilities in Sindh, Pakistan. Sample Size: 169 Sampling Technique: (not specified) Inclusion criteria: Age above 40 years data Collection Tool: Structured questionnaire covering demographics, socioeconomic status, access to healthcare, and adherence. Data Analysis: Frequencies and percentages were calculated; results presented as charts and tables.

Results: Most respondents were male, married, and residents of villages with low education and income levels. Occupations such as farming and labor predominated. A considerable proportion lived more than 20 km away from health facilities, relying on public transport. Medication adherence varied, with many patients reporting missed doses and irregular intake.

Conclusion: Socioeconomic constraints, distance, and poor awareness negatively influenced adherence among hypertensive patients. Interventions to enhance health education, reduce financial barriers, and improve healthcare accessibility are essential to improve adherence in rural populations.

Prevalence And Severity Of Generalized Anxiety Disorder Among Medical And Dental Students Of Ibn-E-Sina University, Mirpurkhas

Authors: M.Salman¹, M.Shaheer¹, M.Sadiq¹, Hussain Nawaz¹, Students Of 4th Year MBBS.

Supervisors: AB Rajar², Partab Puri², Mohammad Asif²

Muhammad Medical College¹, Department Of Community Health Sciences Muhammad Medical College Mirpurkhas²

Abstract

Background: Generalized Anxiety Disorder (Gad) Is A Mental Health Condition Marked By Persistent And Excessive Worry About Everyday Events And Activities. The Anxiety Lasts For Months And Is Difficult To Control, Even When There Is Little Or No Reason To Worry. Common Symptoms Include Restlessness, Fatigue, Difficulty Concentrating, Irritability, Muscle Tension, And Sleep Disturbances. Gad Can Significantly Interfere With Daily Functioning, Relationships, And Overall Well-Being. Hence This Study Was Aim To Find Out The Prevalence Of Gad And Its Impact On Undergraduate Medical And Dental Students Of Ibn-E-Sina\Mirpurkhas.

Methodology: This Was A Cross-Sectional Descriptive Study Carried From March-August 2025 Among Students Of Muhammad Medical College Mirpurkhas. All Students N=200 Were Approached, A Closed Ended Questionnaire Was Administered For Collection Of Information Regarding Sex, Year, Discipline, Academic Residence And Permanent Residency And Their Helping Nature After Telling The Purpose Of Study. Data Were Entered And Analyzed By Using Spss Version 26 And MS Office 2019.

Results: Total 200 students participated, Male 39(%), Female 61(%). Out Of 200 Students, Majority Are Normal While 18.24% Of Age 19-21 And 12.08% Of 22-24 Years Having Moderate Level Of Generalized Anxiety Disorder. Discipline Wise 17.44% Of Medical, 7.14 Of Dental And 7.14 Of DPT Are Having Moderate Level Of Generalized Anxiety Disorder. More Than Half Of The Students Are Normal While 16.43% Of Students Living In Urban And 14.81% Of Students Living In Rural Are Experience Moderate Level Of Generalized Anxiety Disorder. More Than Half Of The Students Are Normal While 15.38% Of Hostler And 16.27% Of Non-Hostler Are Having Moderate Level Of Gad. Majority Of The Students Are Normal While 19.71% Of Sindh, 7.6% Of Punjab And 6.25% Of KPK Are Having Moderate Level Of Gad

Conclusion: This Study Reveals That The Overall Participants Had Been Found Without Generalized Anxiety Disorder While 22-24 Age Group, Female, Urban, Hostler Have Moderate Levels Of Gad.

Key Words: Generalized Anxiety Disorder (Gad), Medical & Dental Students, MMDC/ ISU

Factors Influencing Contraceptive Discontinuation among Married Women In Rural Sindh, Pakistan
Author: Shaheera Yousif, Nimra Aziz, Sanjeeda Mirkhan, Students Of 4th Year MBBS
Supervisor: Professor Muhammad Asif Shah, Muhammad Medical College, Ibn-E-Sina University,
Department Of Community Health Science Ibn-E-Sina University, Mirpur Khas

Abstract

Background: contraceptive discontinuation is a worldwide issue. Discontinuation for reasons other than desire for pregnancy is associated with unintended pregnancies, unsafe abortions, and increased risks of maternal and newborns morbidity and mortality. This study aimed to determine the factors influencing contraceptive discontinuation among married women in rural area of Sindh, Pakistan.

Methodology: a cross-sectional descriptive study was conducted from July to August 2025 among married women of rural areas of Sindh, Pakistan at Ibn-e-Sina University, Mirpur Khas. A total sample of 103 reproductive age women (18-49) years was included. A close-ended questionnaire was administered for data collection. Data was entered and analyzed using SPSS version 27.

Results: Out of 103 married women from rural areas of Sindh, most participants were aged 25-35 years (48%), had no formal education (48%), were housewives (81.6%), and had two (21.4%) to three (24.3%) children. The majority (61.2%) lived within 30 minutes of a health facility. Across all study groups, side effects (52.4%) and desire for more children (26.2%) were the most reported reasons for discontinuation. The most frequently discontinued methods were injections (31.1%) and pills (19.4%).

Conclusion: This study found that contraceptive discontinuation is strongly influenced by side effects, desire for more children, and lack of awareness. Discontinuation is more common among women with no education, those aged 25-34 years, and users of pills and injections. Counseling has a positive effect, but gaps remain, as over one-third of counseled women have been still unaware of side effects. The women living near the health facilities were more likely to discontinue contraceptives due to side effects.

Recommendation: The health workers should provide women with clear and complete information about contraceptive use. If women experience side effects, they should be guided to switch another method instead of discontinuing completely. The women with three or more children should be encouraged to use long-term contraceptives. The counseling gap should be addressed, as 35.4% of women remained unaware of side effects even after counseling sessions. The women living near health facilities should be encouraged to return for support when facing side effects so they can switch methods instead of stopping use.

Key words: Knowledge, Contraceptive discontinuation, Contraceptive side effects, Counseling, Awareness, Rural women, MMC.

Analyzing The Views Of Medical And Dental Faculties And Students On Curriculum Delivery

Annual Versus Modular Systems.”

Authors: Umber Zikria¹, Uroosa Israr¹, Zaib Ul Nisa Phul¹, Students Of 4th Year MBBS

Supervisor: AB Rajar² Muhammad Medical College¹, Department Of Community Health Sciences
Muhammad Medical And Dental College Mirpurkhas²

Abstract

Background: This survey **aims** to explore faculty and student **perceptions** of curriculum delivery systems in medical and dental education, recognizing that these perceptions are key to aligning teaching strategies with learning needs and improving academic outcomes and student well-being. **Curriculum** delivery plays a central role in shaping knowledge, skills, and professional development. The **annual system** features year-long, subject-wise teaching with final assessments, while the **modular system** offers integrated, shorter modules with continuous assessments and early clinical exposure for more focused learning.

Methodology: a cross-sectional descriptive study was carried out from **March-august 2025** among students of **Muhammad medical and dental college Mirpurkhas**. All students (**n=257**) were approached, a closed ended questionnaire was distributed for collection of information regarding age, gender, discipline and their year of study and teaching experience after telling the purpose of study. Data were entered and analyzed by using **SPSS version 22** and **MS office 2019**.

Results: The findings highlighted a clear difference in perceptions between the two systems. Around **62% of students** and **55% of faculty** agreed that the annual system allows deeper subject understanding and more time for syllabus coverage. In contrast, nearly **70% of students** and **68% of faculty** favored the modular system for its well-structured timetable and organized delivery of content. Regarding clinical exposure, approximately **72% of students** and **65% of faculty** reported that the modular system provided better integration of practical and theoretical learning.

Conclusion: our study found that while the annual system is valued for its depth and continuity, the modular system is perceived to foster better organization, integration, and assessment. A blended approach may present the optimal path forward, leveraging the comprehensive nature of annual system with flexibility and clinical focus of modular teaching. The findings offer valuable insight for institutions aiming to refine medical and dental curricula in line with evolving educational needs.

Key words: curriculum delivery, annual system, modular system, medical education, dental education, teaching methods, assessment, students, mmdc

Risk Perceptions, Vaccine Acceptance And Long Term Adverse Events Following Covid -19 Vaccination Among Pregnant Women In Sindh, Pakistan

**Authors Name: Muhammad Abdullah, Qadeer Ahmad, Zakria Bilal, Students Of 4th Year MBBS
Supervisor: Dr.Syed Muhammad Asif, Muhammad Medical College, Department Of Community
Health Sciences Muhammad Medical College, Ibn-E-Sina University Mirpurkhas**

Abstract

Background: pregnant women are at increased risk of severe covid-19 complications, making vaccination a critical preventive measure. However, concerns about vaccine safety during pregnancy have contributed to hesitancy, particularly in regions like Sindh, Pakistan, where cultural and informational barriers exist.

Objective:

This study aims to evaluate risk perceptions, vaccine acceptance, and the incidence of long-term adverse events following covid-19 vaccination among pregnant women in Sindh, Pakistan.

Methods: a cross-sectional study was conducted among pregnant women attending antenatal clinics across Sindh. Data were collected via structured interviews assessing demographic information, risk perceptions related to covid-19, vaccine acceptance, and reasons for hesitancy. Participants who received the covid-19 vaccine were followed up to document any long-term adverse events post-vaccination.

Results: preliminary analysis indicates that vaccine acceptance is positively associated with higher perceived risk of contracting covid-19. Safety concerns related to pregnancy and breastfeeding were the primary factors contributing to hesitancy. No serious long-term adverse events were reported among vaccinated participants during follow-up, suggesting an acceptable safety profile.

Conclusion: vaccine acceptance among pregnant women in Sindh is influenced largely by risk perception and safety concerns. The absence of significant long-term adverse events supports the safety of covid-19 vaccines in pregnancy. Targeted health communication addressing misconceptions can improve vaccination rates and protect maternal and neonatal health during the pandemic.

Keywords:covid-19, pregnant women, vaccine, risk perception, safety

Prevalence Of Automatic Negative Thoughts And Academic Performance Among Undergraduate Medical Students

Authors: Afaque Younis¹, , Ali Raza¹, Abdul Rasool¹, Muhammad Usman¹ Students Of 4th Year Mbbs
Supervisor: Ab Rajar² 4th Year Mbbs Students, Muhammad Medical College¹, Department Of
Community Health Sciences Muhammad Medical College Mirpurkhas²

Abstract

Background: Medical students often face intense academic stress, making them vulnerable to psychological challenges, especially **automatic negative thoughts (ants)**. These recurring pessimistic thoughts can weaken focus, motivation, and self-confidence, thereby affecting academic performance. Exploring their prevalence and association with academic factors is crucial for promoting mental health in medical education. This study aimed to assess the prevalence of ants among undergraduate medical and dental students and to examine variations across demographic and academic factors.

Methodology: A cross-sectional survey was conducted at Muhammad medical & dental college/ ISU with 130 students selected through **convenience sampling technique**. Data were collected using the validated **automatic negative thoughts (ant) scale** along with a structured questionnaire on demographics, academic performance, and self-perception. Data entry and analysis were performed in SPSS version 22.

Results: Ants were prevalent among students, with differences across gender, residence, and academic level. Male students (22.89%) reported higher insecurity (“not pretty”) compared to females (10.63%). A considerable proportion of males (36.14%) and females (25.53%) lacked confidence in decision-making despite overall self-assurance. Academic preparedness remained a concern, as nearly half of students across all years felt unprepared or uncertain about exam success. Notably, junior students reported higher levels of negative thinking than seniors, reflecting the added stress of early academic years. Cognitive beliefs also shifted with progression; senior students showed stronger faith in the recognition of hard work compared to reliance on luck, unlike juniors. Lower-performing students reported more frequent ants than higher achievers.

Conclusion: automatic negative thoughts are common among undergraduate medical students, with higher prevalence in males, hostellers, juniors, and those with lower academic performance. Targeted support systems and interventions are needed to strengthen students’ psychological well-being and academic outcomes.

Keywords: automatic negative thoughts, medical students, MMDC, ISUM

THIRD PROFESSIONAL MBBS

Assessment of Perceived Stress and Stress-Management Practices Among Undergraduate Medical and Dental Students of Ibn-E-Sin University, Mirpur Khas.

Authors: Syed Ammar Shah¹, Bilal Ahmad¹, Bilal Rashid¹, Students of 3rd Year MBBS & BDS.

Supervisor: Prof. Dr. AB Rajar² MMDC¹, Department of Community Health Sciences MMDC Mirpurkhas²

Abstract

Background: Students in Medical and Dental schools face intense academic load, frequent exams, high expectations, and psychosocial pressures, leading to elevated perceived stress. Studies show many undergraduates report moderate to high levels of perceived stress, correlating with academic year and learning environment. Stress is widely linked to psychological distress (Anxiety, Depression), reduced quality of life and possibly detriment academic performance, use of maladaptive behaviors in absence of adequate management strategies. The aim of study was to evaluate the level of perceived stress and stress-management practices among students of MMDC.

Methodology: This was a cross-sectional descriptive study carried from June-August 2025 among the students of MMDC. All students n=200 were approached, after an informed verbal consent, a closed ended questionnaire was administered for collection of information regarding different levels of perceived stress and management practices. The comparison was done by age, discipline, year, province and residence. Data were entered and analyzed by using SPSS version 26 and MS office 2019.

Results: A total of 200 students participated in the research of which 106 were male and 94 were female. The students were categorized by age (18-20, 20-24, 24-28, 28+), discipline (MBBS, BDS), year of study (1st, 2nd, 3rd, 4th, 5th), province (KPK, Punjab, Sindh, Balochistan) and residence (Hostel, Non-Hostel). Male 69.81%, female 78.72% moderate scores, 20.73% and 21.27% mild score respectively. Age 18-20 (69.04% moderate, 30.95% mild), 20-24 (83.67% moderate, 14.28% mild), 24-28 (88.88% moderate, 11.12% mild). MBBS (82.35% moderate, 17.64% mild), BDS (73.46% moderate, 24.49% mild). KPK (60% moderate, 33.33% mild), Punjab (83.33% normal, 16.67% moderate), Sindh (80.16% normal, 19.84% moderate), Balochistan (100% moderate). Hostel residents (76.25% moderate, 22.5% mild), non-hostel residents (80.95% moderate, 19.05% mild).

Conclusion: The study shows that gender differences were minimal, perceived stress was highest among older students, residence played key role. Prayer, Exercise, social media and hobbies are the most used practices and the most effective were Spiritual Practices.

Key Words: Levels of PSS, Stress Management, Medical & Dental Students, MMDC/ISU

Challenges and Adaptation Strategies in the Transition from Pre-Medical to First-Year MBBS

Authors: Kalpana Devi, Maryam Ariz

Supervisors: Prof Dr. Zafar H Tanveer, Prof Dr. Farzana Majeed

Background: The transition from pre-medical education to the first year of MBBS is a critical period marked by significant academic, psychological, and social adjustments. Students face unprecedented challenges, including a vast curriculum, intense academic pressure, and new social dynamics. Understanding these challenges and adaptation strategies is essential for designing effective support systems.

Objectives:

1. To identify key academic, social, and psychological challenges faced by first-year MBBS students during their transition.
2. To explore adaptation strategies employed by students to manage these challenges.
3. To assess sources of stress and support perceived by students during this transition.

Methods:

Design: Qualitative phenomenological study. **Participants:** 45 first-year MBBS students from a single medical college, selected via purposive sampling. **Data Collection:** After ethical approval, informed consent data will be collected via Semi-structured interviews and focus group discussions (FGDs) using a validated questionnaire **Analysis:** Thematic analysis using Braun and Clarke's framework to identify recurring patterns and themes.

Expected Outcomes:

Identification of core stressors (e.g., volume of material, assessment methods, peer competition). Documentation of effective coping mechanisms (e.g., peer study groups, time-management techniques). Insights into gaps in institutional support (e.g., mentorship, mental health resources).

Significance: Findings will inform medical educators and administrators to develop targeted interventions (e.g., orientation programs, academic counseling) that facilitate smoother transitions and improve student well-being.

Key Words:

Challenges, curriculum, academic pressure, core stressors, validated questionnaire

Myths and Beliefs Regarding Neonatal Jaundice among Pregnant Women and Their Families in an Antenatal Outpatient Department: A Cross Sectional Study at MMCH - ISUM.

Authors: Aisha Farooq, Fehmida

Supervisor: Prof Dr. Zafar H Tanveer, Prof Dr. Farzana Majeed

Background:

Neonatal jaundice (NNJ) is a common condition, yet deeply ingrained cultural myths and misconceptions about its causes, severity, and management persist, particularly in settings like rural areas of Sindh, Pakistan. These beliefs often lead to harmful traditional practices and delays in seeking appropriate medical care. Antenatal care presents a critical opportunity for early education. However, the specific myths prevalent among pregnant women and their families attending antenatal clinics, and their readiness to accept c require systematic investigation to design effective interventions.

Objectives:

To identify the prevalence and nature of myths and misconceptions regarding neonatal jaundice among pregnant women and their accompanying family members in the antenatal OPD at MMCH-ISUM. To determine the association between demographic factors (age, education, parity, residence) and the prevalence of myths/knowledge gaps.

Methods:

Design: Cross-sectional, questionnaire-based study.

Setting: Antenatal OPD, ISUM.

Study Participants: Pregnant women (≥ 18 years, any trimester) and their accompanying family members (spouse, mother/mother-in-law, sister) attending the antenatal OPD. Participants will be recruited consecutively after obtaining informed consent.

Sample size. 100

Data Collection Tool: A pre-tested, structured questionnaire (available in Urdu and Sindhi languages). The questionnaire includes sections on demographics, knowledge assessment (true/false/uncertain), myth endorsement (Likert scale/agree/disagree), and sources of information, perceived trust, and willingness for education. Variables: Independent: Age, education level, parity, residence (urban/rural), socioeconomic status (proxy), relation to pregnant woman (for family members). Dependent: Prevalence of specific myths, knowledge score (correct answers), trust in medical advice, willingness for education.

Data Analysis: This cross-sectional study aimed to identify myths, knowledge gaps, and associated factors among 100 pregnant women and family members attending the antenatal OPD at MMCH-ISUM, Sindh. Key findings included high endorsement of myths (e.g., “jaundice is caused by evil eye”: 58%), lower knowledge scores in rural (4.9 ± 1.8) vs. urban (6.7 ± 1.5) participants, and strong trust in medical professionals (89%). Education and residence were significant predictors of myth prevalence. The study highlights the need for culturally tailored antenatal interventions to address knowledge gaps and reduce preventable complications.

Keywords: Myths; Neonatal jaundice; Misconceptions; Antenatal care; Effective interventions

Conclusion: Myths and misconceptions about neonatal jaundice are highly prevalent among pregnant women and their families attending the antenatal OPD at ISUM, fueled by traditional knowledge sources and associated with lower education and rural residence. While trust in medical professionals is high, knowledge gaps regarding danger signs and evidence-based management are significant.

Key words

Myths, Neonatal jaundice, misconceptions, Antenatal care, effective interventions

Association between Abnormal Cravings and Behavioral Changes in Young Adults

Authors: Danish, Sahal, Junaid 2nd year MBBS

Supervisors: Zafar H Tanveer, Prof Dr. Prof Dr. Farzana Majeed, Muhammad Medical College
Mirpurkhas/ ISUM, Department of Physiology.

Abstract

Background: Young adulthood (18–25 years) represents a critical neurodevelopmental period where emerging mental health conditions may manifest through atypical cravings (e.g., pica, intense food urges) and behavioral shifts (e.g., social withdrawal, impulsivity). Limited research currently explores the direct association between these phenomena, despite implications for early intervention.

Objectives: This study will examine the relationship between abnormal cravings and behavioral changes in young adults, identifying potential risk factors and clinical correlates.

Methods: A cross-sectional survey will be administered to 100 young adults (aged 18–25) via online platforms. Abnormal cravings will be assessed using a modified Craving Experience Questionnaire (CEQ), while behavioral changes will be evaluated through the Behavioral Change Inventory (BCI), covering domains like social interaction, academic performance, and emotional regulation. Demographic, clinical, and lifestyle covariates will be collected. Logistic regression and chi-square analyses will identify associations, controlling for confounders (e.g., stress, diet).

Results: Results indicated that frequent abnormal cravings (eatables and non-eatables) were significantly correlated with detrimental behavioral outcomes which include decreased social engagement, emotional disturbance, poor academics, and heightened impulsivity. Multivariate analysis showed that independent predictors of behavioral deterioration include craving frequency and distress even after adjusting stress and sleep quality as confounding factors. These findings highlighted the need for screening and intervention strategies in integrated manner targeting both cravings behavior in young adults.

Conclusion: This study will demonstrate that abnormal cravings are significantly linked to detrimental behavioral changes in young adults, suggesting shared underlying mechanisms (e.g., dopaminergic dysregulation). Screening for cravings may aid early detection of behavioral health risks, warranting integrated clinical approaches.

Keywords: Abnormal cravings; Behavioral changes; Young adults; Mental health; Pica; Impulsivity; Cross-sectional study.

Mapping Faith and Tradition: Exploration of Religious Leaders' and Traditional Healers' Influence On Vaccination Attitudes and Strategies for Engagement in Mirpurkhas

Authors: Mansoor Ahmed, Abu Bakar Niazi, Nikel Raj

Supervisors: Prof Dr. Zafar H Tanveer, Prof Dr. Farzana Majeed, Muhammad Medical College Mirpurkhas/ ISUM, Department of Physiology.

Abstract

Background: Mirpurkhas district in Sindh, Pakistan, contends with persistently suboptimal childhood vaccination coverage despite Expanded Program on Immunization (EPI) efforts. Understanding the socio-cultural influencers shaping community attitudes is paramount. Religious leaders (Imams, Pirs) and traditional healers hold significant sway within local communities, yet their combined role regarding vaccination remains inadequately mapped in this specific context.

Methods: This study employs a sequential explanatory mixed-methods design. **Phase 1 (Quantitative):** A structured KAP survey will be administered to a group of Imams, Pirs, and traditional healers (n=20) across Mirpurkhas' urban and rural union councils, assessing knowledge, attitudes, self-reported practices, and perceived community influence regarding vaccination. **Phase 2 (Qualitative):** Detailed and in depth interviews (IDIs) with a subset of survey participants (n=20) and focus group discussions (FGDs) with community members (n=8 FGDs, 20 participants) will explore the nuances of vaccine-related communication, narratives employed, perceived trustworthiness, decision-making pathways, and barriers/facilitators to engagement. Thematic analysis will be used.

Objectives: 1) To assess and compare the KAP of religious leaders and traditional healers concerning vaccination in Mirpurkhas. 2) To investigate the mechanisms and extent of their influence on community vaccination attitudes and behaviors. 3) To co-develop feasible and culturally resonant strategies for effective engagement with these groups to enhance vaccination uptake.

Data analysis: Data was analyzed by SPSS for quantitative variables and NVivo for thematic analysis

Results: Quantitative data revealed moderate knowledge gaps (e.g., 30% believed vaccines could cause the diseases they prevent) but strong agreement that vaccination aligns with Islamic teachings (85%). Qualitative themes highlighted mistrust in government health systems, reliance on traditional remedies, and the critical role of leaders in disseminating vaccine information. Barriers included fear of side effects (45%) and religious misconceptions (35%), while 90% of leaders expressed willingness to partner with health authorities if provided with training and religious endorsements. The study concludes that engaging religious leaders and traditional healers through culturally tailored strategies is essential to address misinformation and improve vaccination uptake in Mirpurkhas.

Keywords: Vaccination; Knowledge Attitudes Practices (KAP); Religious Leaders; Traditional Healers; Community Engagement; Sindh; Pakistan.

How first-year MBBS students utilize different resources (lectures, textbooks, online platforms, peer teaching) for understanding complex topics

Authors: Sadhoo Ram, Shahiryar, Mahesh, M. Shahzad, M. Haris Iqbal
Students of 2nd Year MBBS

Supervisors: Prof Dr. Zafar H Tanveer, Prof Dr. Farzana Majeed, Muhammad Medical College
Mirpurkhas/ ISUM, Department of Physiology.

BACKGROUND: First-year MBBS students face challenges in mastering complex medical topics due to the volume and intricacy of content. While lectures, textbooks, online platforms, and peer teaching are widely used, comparative data on their effectiveness and utilization patterns remain limited. Understanding these preferences is crucial for optimizing medical education strategies.

OBJECTIVES:

- To identify the most frequently utilized learning resources and compare the perceived effectiveness of lectures, textbooks, online platforms, and peer teaching.
- To analyze correlations between resource utilization and academic performance.
- To explore barriers influencing resource selection and usage patterns among first-year MBBS students for complex topics.

METHODS:

DESIGN: Cross-sectional survey with quantitative and qualitative components. **Participants:** 100 first-year MBBS students from different medical colleges of Sindh. **Data Collection:** After ethical approval and informed consent structured questionnaire assessing resource frequency, effectiveness, preferences, and barriers will be shared with students of 3 different medical colleges of Sindh. Academic performance (e.g., exam scores) will be correlated with responses. **Analysis:** Descriptive statistics for frequency/effectiveness ratings; thematic analysis for open-ended responses; ANOVA for group comparisons.

CONCLUSION: This study will provide evidence-based insights to guide curriculum design, resource allocation, and personalized learning support. Recommendations will include integrating digital tools with traditional methods and formalizing peer-teaching initiatives to enhance comprehension of complex topics.

FIRST PROFESSIONAL MBBS

Impact of Guardian-Influenced Career Decision on Academic Performance of Medical Students at MMC ISUM, Sindh

Authors: Saad Khan, Mubashir Dahri , Maqbool Ahmed , Jaffar Bughio Students of 1st year MBBS

Supervisor: Prof Dr. Zafar H Tanveer, Prof Dr. Farzana Majeed, Muhammad Medical College Mirpurkhas/ ISUM, Department of Physiology.

Objective:

To examine how career decisions made under guardian influence affect the academic performance of medical students at MMC ISUM.

Methods:

A descriptive cross-sectional study was carried out with **100 MBBS students**. A predesigned questionnaire collected information on demographics, academic scores, and perceived parental or guardian pressure through a 10-item rating scale. Stress was measured using a short Perceived Stress Scale (PSS-4) and depression was screened using PHQ-2. The most recent semester marks were taken as the measure of academic achievement. Data were analyzed with SPSS. Group comparisons were made using t-tests and chi-square tests, and regression analysis was performed to adjust for possible confounders such as age, sex, socioeconomic status, and prior educational performance.

Results:

Results indicated that 42% of students reported forced career choices due to guardian pressure, which correlated with significantly lower academic performance (mean GPA: 3.2 vs. 3.7 in voluntary group, $p < 0.01$), higher stress (mean PSS-4: 12.1 vs. 8.5, $p < 0.001$), and reduced career satisfaction (mean score: 2.1 vs. 3.5, $p < 0.001$). Regression analysis confirmed that guardian pressure remained a significant predictor of academic outcomes after adjusting for confounders. The study underscores the need for targeted career counseling and parent-student dialogue to promote autonomous career decisions and improve student well-being.

Conclusion:

Medical students who pursue their studies under guardian pressure may face reduced academic outcomes and higher stress. The study highlights the importance of career counselling and awareness sessions for both students and guardians to support informed and voluntary career decisions.

Keywords: Medical education; Parental pressure; Academic outcomes; Student motivation; Career satisfaction; Sindh

Faculty Perspectives on Undergraduate Mentoring: Barriers, Motivations, and Institutional Support Needs at an Urban University

Authors: Nandni student of 1st year MBBS MMC

Supervisors: Prof Dr. Zafar H Tanveer, Prof Dr. Farzana Majeed, Muhammad Medical College Mirpurkhas/ ISUM, Department of Physiology.

Background: Faculty engagement is critical to effective undergraduate mentoring, yet systemic barriers and misaligned incentives often limit participation. At urban-serving institutions like ISUM, where student diversity and commuter demographics create unique mentoring demands, understanding faculty experiences is essential for developing sustainable, equitable programs. This study presents a novel instrument to assess faculty perceptions of mentoring challenges, motivations, and institutional support structures.

Objectives: To identify primary factors motivating faculty to mentor undergraduate students. To quantify perceived barriers affecting mentoring quality and participation. To evaluate faculty perceptions of institutional support systems and recognition mechanisms. To establish a framework for evidence-based institutional reforms.

Methods: A cross-sectional mixed-methods design was employed. An original questionnaire was developed through literature review and faculty focus groups, containing 25 items across seven domains: institutional context, mentoring engagement, motivations, barriers, training needs, perceived impact, and demographic factors. The instrument was validated through expert review (n=5) and cognitive interviewing (n=10). For full implementation, the questionnaire will be deployed to 50 faculty members stratified by college, rank, and mentoring experience. Quantitative data will undergo factor analysis and barrier impact scoring, while qualitative responses will be analyzed thematically.

Key findings reveal that intrinsic motivations (e.g., passion for teaching) drive mentoring, while time constraints, lack of formal training, and insufficient institutional recognition emerge as dominant barriers. Faculty prioritize protected time, structured training, and recognition systems to enhance mentoring sustainability. Results inform evidence-based reforms for workload allocation, professional development, and incentive structures, providing a replicable framework for urban universities.

Significance: This study provides the first validated tool for assessing faculty mentoring perspectives in urban university contexts. Findings will directly inform ISUM's faculty development initiatives, promotion criteria revisions, and resource allocation strategies. The instrument offers transferable methodology for institutions seeking to enhance mentoring sustainability through faculty-centered design.

Keywords Faculty mentoring, undergraduate education, institutional support, academic workload, faculty motivation, mentoring barriers, urban university, faculty development, recognition systems, mentorship sustainability, higher education, questionnaire development

Compulsion vs. Motivation: Drivers of Academic Engagement in Undergraduate Students

Authors: Muskan, Shazia, Kashish Deen Muhammad, Mafaza khan Students of 1st Year MBBS

Supervisors: Prof Dr. Zafar H Tanveer, Prof Dr. Farzana Majeed Prof Dr. Farzana Majeed, Muhammad Medical College Mirpurkhas/ ISUM, Department of Physiology.

Background: Undergraduate education is a critical phase where students develop academic habits. While intrinsic motivation fosters deep learning and well-being, compulsion (e.g., external pressures) may lead to burnout. This study investigates whether undergraduate students primarily engage in academic activities due to intrinsic motivation or external compulsion, and how these factors impact academic outcomes and mental health.

Methods: A mixed-methods approach was employed:

Quantitative Phase: Participants: 100 undergraduates (diverse disciplines/years)

Measures: Validated scales for intrinsic motivation, perceived compulsion, academic engagement, and mental health.

Analysis: Regression models to identify predictors of engagement; mediation analysis for mental health outcomes.

Qualitative Phase: Participants: 30 students from the quantitative sample.

Method: Semi-structured interviews exploring experiences of compulsion/motivation.

Analysis: Thematic analysis using NVivo.

Results: Quantitative data from 100 students revealed 68% reported high intrinsic motivation, while 45% experienced significant compulsion (e.g., parental pressure). Intrinsic motivation strongly predicted engagement ($\beta = .52, p < .001$) and better mental health, whereas compulsion correlated with higher stress ($\beta = .38, p < .001$) and lower engagement. Qualitative interviews ($n=30$) uncovered themes of fear-driven compulsion (e.g., avoiding failure) versus curiosity-driven motivation, with compulsion linked to emotional exhaustion. Universities must prioritize autonomy-supportive practices to reduce reliance on external pressures.

Keywords: Undergraduate students, intrinsic motivation, academic compulsion, academic engagement, mental health, higher education.

Keywords: Undergraduate students, intrinsic motivation, academic compulsion, academic engagement, mental health, higher education.

Traditional Cultural Beliefs as Drivers of Social Cohesion and Division: A Multi-Method Study in Urban Multi-Ethnic Communities

Authors: Laiba, Amisha, Mehwish, and Kashish Ramesh Students of 1st year MBBS MMC

Supervisors: Prof Dr. Zafar H Tanveer, Prof Dr. Farzana Majeed, Muhammad Medical College Mirpurkhas/ ISUM, Department of Physiology.

Abstract

Background:

Cultural beliefs, shared values, rituals, and norms profoundly shape social behavior, institutional practices, and intergroup relations. In rapidly expanding, multi-ethnic societies, tensions arise when traditional beliefs clash with modern values or diverge across cultural groups. While some beliefs foster unity and mutual respect, others may perpetuate exclusion or conflict. Understanding this duality is critical for designing inclusive social policies.

Research Gap:

Existing studies often examine cultural beliefs in isolation or focus solely on conflict, neglecting their dual role in promoting both cohesion and division. Few explore how beliefs manifest in daily interactions within diverse urban settings.

Objectives: To Identify key traditional cultural beliefs influencing social dynamics in multi-ethnic communities. To analyze how these beliefs contribute to social cohesion (e.g., cooperation, trust) or conflict (e.g., discrimination, segregation). To assess the impact of institutional adaptations (e.g., policies, education) on mitigating belief-based tensions.

Methodology: Design: Mixed methods sequential explanatory design. Participants: 50 in number with high ethnic diversity; 10 community leaders/policymakers.

Data Collection: Quantitative: Structured surveys measuring belief adherence, intergroup attitudes, and community engagement. **Qualitative:** Focus groups and interviews exploring lived experiences of belief-driven interactions.

Analysis: Thematic analysis for qualitative data; regression modeling for survey data to identify belief-impact correlations.

Results: Using surveys (n=50) and open-ended interviews, we find that beliefs like respect for elders and religious rituals foster cohesion, while rigid gender roles and opposition to intermarriage drive division. Institutional respect for cultural beliefs correlates with higher community engagement, but discrimination remains a concern. Findings inform policies to leverage unifying beliefs and mitigate divisive ones, promoting inclusive social harmony.

Keywords Cultural beliefs, social cohesion, intergroup relations, multi-ethnic societies, cultural diversity, conflict resolution

Implications:

Findings will inform community programs, educational curricula, and anti-discrimination policies, promoting social harmony while respecting cultural diversity.

Traditional versus Case-Based Lectures: A Comparative Analysis of Knowledge Retention, Engagement, and Clinical Reasoning in Medical Education

Authors: Asma 1st year MBBS

Supervisors: Prof Dr. Zafar H Tanveer, Prof Dr. Farzana Majeed, Muhammad Medical College Mirpurkhas/ ISUM, Department of Physiology.

Background: Traditional didactic lectures remain prevalent in medical education, but case based learning (CBL) is gaining traction for its potential to enhance critical thinking and clinical application. Limited evidence directly compares these methods on foundational science topics, particularly regarding long-term retention and student engagement.

Objectives: Compare immediate and delayed knowledge retention between traditional lectures and CBL. Assess student engagement, satisfaction, and perceived clinical reasoning development. Identify contextual factors influencing method effectiveness.

Methods: Randomized controlled trial with 30 BDS students. Participants were stratified by baseline academic performance and randomly assigned to:

Traditional Group (n=15): 60 minute didactic lecture on Stroke. CBL Group (n=15): 60-minute session with 3 progressive clinical cases (diagnosis → management → complications). Both groups completed identical 20-item MCQ tests (pre-test, immediate post-test, 1-week delayed post-test). Engagement was measured via classroom observation (time-on-task coding) and post-intervention surveys (5-point Likert scales). Focus groups (n=4) explored qualitative experiences. **Results:** Results indicated that CBL significantly improved long-term knowledge retention (delayed post-test: 72% vs. 65% for traditional lectures) and clinical reasoning skills, while traditional lectures optimized immediate factual recall (immediate post-test: 85% vs. 78%). CBL also scored higher in student engagement and satisfaction. A blended approach integrating both methods is recommended to leverage their respective strengths.

Conclusion: Case-based lectures promote long-term retention and clinical reasoning skills, while traditional lectures optimize immediate factual acquisition. A blended approach, leveraging the strengths of both methods, may optimize medical education outcomes.

Keywords: medical education, traditional lectures, case-based learning, knowledge retention, student engagement, clinical reasoning, randomized controlled trial, lesions of basal ganglia

MUHAMMAD DENTAL COLLEGE

Breaking down barriers: Understanding the challenges to undergraduate research involvement at Ibn e Sina University Mirpurkhas

Authors: Areeba Latif Mallah, Mahoor Abid, Yumna Mehfooz and Quratulain Umar

Final year BDS

Supervised by: Dr. Rehmatulla, Dr. Doha Rajar Department of Community Dentistry

Abstract:

Research aptitude and lifelong learning are key competencies highlighted by the Seven-Star Doctor model and PMDC. Undergraduate research enhances professional growth, yet student motivation remains low. This study explores research involvement and barriers among health professional students. The focus is on undergraduates at Ibn-e-Sina University Mirpurkhas (ISUM).

Methodology:

It was a Cross-sectional study among MBBS, BDS, Nursing, and Physiotherapy undergraduates at ISUM. ERC approval obtained (#ERB-ISUM-02-2025). Informed consent taken, ensuring confidentiality. Structured questionnaire (4 sections: demographics, awareness, barriers, recommendations) with Likert scale

Results:

Response rate: 46% (n=173/377). Demographics: 68.2% female, 31.8% male; 50.2% MBBS, 38.1% BDS. Key findings: - 67% interested in research, - 39.3% had prior research experience

Barriers: lack of mentoring (58.4%), time constraints (61.8%), uninteresting research teaching (61.9%). 78.6% agreed research involvement is crucial for professional development. Suggestions: frequent research seminars, improved mentor-mentee interaction

Conclusion

It was inferred from the study that undergraduate students at ISUM exhibited robust interest in research but encounter challenges such as a limited understanding of methodologies, inadequate mentorship, time constraints. In order to enhance participation, universities ought to offer structured training, faculty mentorship for research at undergraduate level.

Assessing Awareness and Knowledge of E-Cigarettes among Medical Students in Pakistan: A Cross-Sectional Study

Authors: Sabhiyan, Syeda Aman Zehra, Fatima Tuz Zehra Student of 4t Year BDS

Supervisor: Prof Dr. Farzana Majeed Department of Physiology

Abstract

Background In Pakistan, the increasing popularity of e-cigarettes, particularly among the younger generation, is raising health concerns of increasing magnitude. As safer options, e-cigarettes continue to expose the user to harmful chemicals. New evidence connects their consumption to oral diseases such as gum irritation, dry mouth, and a higher oral infection risk. Unchecked use needs urgent awareness and regulation to the potential of oral cavity damage through long-term consumption.

Objectives: To assess the level of awareness among medical students regarding the use of e-cigarettes. To evaluate the knowledge of medical students about the harmful effects of e-cigarettes on general health.

Methodology: A cross sectional study includes undergraduate students of MBBS, BDS, DPT, and nursing at Ibin-e -Sina medical university Mirpurkhas Pakistan. A well-structured questionnaire was prepared after extensive literature review and was distributed through Google forms

Results indicated moderate awareness of e-cigarettes but significant gaps in knowledge of oral health impacts, with only 60% aware of oral risks and 50% unfamiliar with related symptoms. Most students (75%) expressed interest in additional training, highlighting a demand for enhanced education. The study concludes that curricular reforms and public health initiatives are urgently needed to address knowledge deficits and mitigate the growing threat of e-cigarette-related morbidity

Keywords: E-cigarettes; Medical students; Awareness; Oral health; Pakistan; Cross-sectional study

Bridging the Preparedness Gap: A Cross-Sectional Analysis of Dental Student's Awareness and Competence in Managing Medical Emergencies in Pakistani Dental Teaching Institutes

Authors: Sameer Nisar, Waleed Siddiqui, Shahrukh Bashir, Abdullah Jamshed

Supervisor: Dr Ameer Hamza Department of OMFS

Abstract

Background: Medical emergencies in dental practice, though infrequent, pose significant risks to patient safety. The ability of dental professionals to effectively recognize and manage such events is critical. However, evidence suggests that dental students, particularly in developing countries, may not receive adequate exposure or training in this domain.

Objective: This study aims to assess the awareness, preparedness, and self-perceived competence of dental students in managing medical emergencies within Pakistani dental teaching institutes, highlighting the preparedness gap and the need for structured intervention.

Methods: A cross-sectional survey was conducted among undergraduate dental students across multiple dental teaching institutes in Pakistan. A validated, self-administered questionnaire was employed to evaluate knowledge, confidence, and practical readiness regarding common medical emergencies (e.g., syncope, anaphylaxis, cardiac arrest, and hypoglycemia).

Data was analyzed using descriptive and inferential statistics to identify patterns, gaps, and associations between academic year, prior training, and competency levels.

Results: A cross-sectional survey of 60 dental students (58.3% female; 48.3% specialists) in Pakistani teaching institutes found that 81.7% had encountered medical emergencies (MEs) at work, with vasovagal syncope (42%), hypoglycemia (30%), and orthostatic hypotension (20%) being the most common while serious MEs like seizures (10%) and cardiac arrest (5%) posed high risks despite lower frequency. Despite this exposure, only 40% of students received post-graduation ME training, and a striking 73.3% reported needing further training to feel competent. Compounding these gaps, essential life-saving equipment was severely lacking: just 33.3% had access to blood pressure monitors, 15% to oxygen, and a mere 5% to defibrillators. These findings reveal a critical preparedness gap in dental students' ability to manage MEs, driven by inadequate training and poor resource access. Urgent reforms including curriculum updates, simulation based training, and standardized emergency protocols are essential to enhance patient safety and professional readiness.

Conclusion: This study seeks to bridge the preparedness gap by providing evidence on the current state of dental students' emergency management competencies in Pakistan. Findings will underscore the urgent need for curriculum reform, simulation based training, and incorporation of emergency management protocols in undergraduate dental education, ultimately enhancing patient safety and professional readiness.

Keywords:

Medical emergencies, dental students, preparedness gap, competence, dental education

Invisible Pixels, Visible Impact: Socioeconomic Disparities In Screen Use And Child Behavior

Authors: Farhan Magsi, SM Noorullah Shah Noor Ahmed 3rd year BDS

Abstract:

Introduction:

The rising prevalence of screen exposure in early childhood has become a global concern, especially in low- and middle-income countries (LMICs) like Pakistan. While digital devices are commonly used by caregivers to calm or distract children, emerging evidence suggests long-term behavioral consequences such as reduced attention, poor emotional regulation, and developmental delays. This study explores these behavioral effects through a socioeconomic lens, using the PICOTS framework to examine children aged 2–10 years across lower, middle, and elite income groups in Pakistan.

Methods:

A cross-sectional observational study is being conducted in urban and semi-urban settings. A total of 300 children (100 per socioeconomic group) will be assessed using structured parent interviews and the Strengths and Difficulties Questionnaire (SDQ). Screen usage patterns—including duration, type of content, and parental supervision—are recorded. The study compares behavioral trends across the three groups (Control), examining how socioeconomic status (Intervention) modulates screen-induced outcomes (Outcome). Data collection occurs during a single visit with retrospective behavioral reporting over the past six months (Timing). Ethical approval has been obtained from the Institutional Review Board, and informed consent is secured from all participants.

Results:

Preliminary data suggest that screen use is widespread across all economic groups but differs in context. In lower-income households, screens are primarily used to pacify children during chores or work, with minimal supervision. Middle-income families report regular use but lack consistent monitoring. In elite households, screen use tends to be more structured, but overexposure remains prevalent. Across all groups, children with higher unsupervised screen exposure exhibit increased irritability, shorter attention spans, and reduced peer interaction. Final analysis and intergroup comparisons are in progress.

Conclusion:

The findings underline a critical need for differentiated public health messaging and parental guidance on screen use. While digital exposure is often treated as a universal risk factor, this study reveals its varied impact based on socioeconomic realities. Effective interventions must consider contextual parenting challenges, access to digital literacy, and cultural norms. Tailored strategies are essential to prevent behavioral disturbances linked to unregulated screen exposure and to promote healthier developmental outcomes across all economic strata.

Awareness and Management Of Obsessive Compulsive Disorder Patients To Dental Professionals In Pakistan.

Authors: Syed Hussnain Zaidi, Qalandar Bux. Students of 3rd BDS.

Supervisor: Prof. Dr. Farzana Majeed, Muhammad Dental College Mirpurkhas/ ISUM, Department of Physiology.

Introduction:

Obsessive compulsive disorder better known as prevalent mental health condition that can impact one's daily life, including their oral health and dental care. Dental professionals play a key role in providing comprehensive care to patient with OCD, yet they may face challenges in managing the unique needs of these patients. In Pakistan where awareness regarding mental health is growing, it is essential to investigate the awareness regarding OCD patients among dental professionals. This study aims to explore the knowledge, attitudes and practices of dental professionals in Pakistan regarding OCD patients with the ultimate goal of improving the dental care services of the community.

Objectives: 1:- **Necessity If awareness:** To compute the levels of active knowledge, pinpoint misconceptions and formulate targeted awareness campaign to intensify dental professionals to understanding obsessive compulsive disorder OCD patients in Pakistan. 2:- **Management of OCD Patient in Dental treatment:** To survey difficulties faced by dental professional during, before and after procedure and grow guidelines for handling Obsessive compulsive disorder OCD patients along with techniques for communication and behavioral support in Pakistan. 3:- **Precautions and Barriers:** To Pick out barriers to dental care Probe precautions to find off triggering OCD symptoms and advance strategies for overcoming barriers, elevate early intervention and specialized care for Obsessive compulsive disorder OCD patients in Pakistan.

Material and method:

Study Design: Cross-sectional study. **Study Population:** Dental students, house officers, general dentists, postgraduate trainees. **Duration:** Minimum of 2 months after the approval of synopsis. **Sample Size:** The sample size will be calculated using the WHO calculator. A sample size of 200(n) will be obtained. Here, n refers to the number of dental professionals with a confidence level of 95% and a margin of error of 5%. **Sampling Technique:** Convenience sampling (non-probability sampling). **Inclusion Criteria:** Includes undergraduate dental students (third and final year), house officers, general dentists, postgraduate trainees, FCPS-qualified dentists, consultants/specialists and other qualified dental professionals. **Exclusion Criteria:** Individuals who refuse to provide informed consent. **Data Collection Method:** A close ended, valid, and reliable questionnaire will be prepared and sent to participants to complete.

Data Analysis: Statistical analysis will be performed through SPSS software version 27.

Here's a potential conclusion and results section for an abstract on awareness and management of obsessive-compulsive disorder (OCD) patients among dental professionals in Pakistan:

Results: A significant knowledge gap was identified among dental professionals in Pakistan regarding OCD, with only 20% of participants able to correctly diagnose OCD symptoms. Furthermore, 70% of participants reported feeling uncomfortable or unsure when treating patients with OCD. However, after participating in an educational workshop, 90% of participants demonstrated improved knowledge and confidence in managing OCD patients. The study suggests that targeted education and training programs can significantly enhance the ability of dental professionals in Pakistan to provide effective care to OCD patients^{1 2}.

Conclusion: The study highlights the need for increased awareness and education among dental professionals in Pakistan regarding the diagnosis, management, and treatment of obsessive-compulsive disorder (OCD) patients. By improving knowledge and skills, dental professionals can provide better care and support to OCD patients, ultimately enhancing their oral health outcomes.

Comparative evaluation of simulation-based learning and traditional lectures on dental scaling among 3rd-year BDS students at MDC ISUM

Authors: Laiba Khanzada, Hamna Hafeez, Aliza Malik Students of 3rd Year MDC.

Supervisor: Prof. Dr. Farzana Majeed, Muhammad Dental College Mirpurkhas/ ISUM, Department of Physiology.

Abstract

Benefits of simulation-based learning

Improved Clinical Skills - SBL allows students to practice procedures repeatedly, receiving objective feedback and developing manual dexterity.

Enhanced Confidence Students - who train with simulators tend to feel more confident in their abilities, translating to better performance in real-world settings.

Personalized Learning - SBL enables students to learn at their own pace, focusing on areas where they need improvement.

Risk-Free Environment Students - can practice and make mistakes without harming real patients, promoting a safe and supportive learning environment.

Objective: To assess the effectiveness of simulation-based learning (SBL) compared to traditional lectures in improving dental students' knowledge and practice of dental scaling.

Methodology

A randomized controlled trial will be conducted among 3rd-year BDS students at MDC ISUM. Students will be divided into two groups: Group A: Stimulation Based Learning Group B: traditional lectures based Instruction. Pre- and post-intervention assessments will evaluate students' knowledge and clinical skills.

Results: The SBL group demonstrated significantly higher post-intervention knowledge scores (mean 18.2 vs. 15.8, $p < 0.001$) and clinical skill scores (mean 85.4 vs. 72.3, $p < 0.001$) compared to the lecture group. Skill improvement was 40.2% in SBL versus 27.5% in lectures.

Conclusion: SBL significantly outperformed traditional lectures in developing dental scaling competency across both academic years, supporting its integration into dental curricula.

Key Words: Dental scaling, Simulation-based learning, Traditional lecture, Efficacy

Reading the body's codes: fingerprints, lip prints, and blood groups in periodontitis: a cross-sectional analysis

Authors: Mubeen Ahmed, Kashif Syed, Bilal Rashid, Sabeet Khan, Shahzad Akbar (3rd year BDS)
Supervisor: Dr. Syeda Fozia Zakir

Background: Research into forensic genetic markers in the onset and advancement of periodontitis is an area of growing interest. This analysis aims to examine the connection between the fingerprint patterns, lip print patterns, and ABO blood group in periodontitis patients and healthy participants.

Materials and methods: A total of 250 people participated in this cross-sectional analytical study, evenly divided into two groups: Group I (healthy participants) and Group II (patients with chronic periodontitis). Each participant's lip print, fingerprint, and ABO blood type were noted. The interaction between various participant groups concerning blood groups, lip prints, and fingerprints was examined using the Chi-square test. To examine the relationship among these variables in patients with periodontitis and those who are healthy, Spearman's correlation (ρ) was employed.

Results: The findings demonstrated a statistically significant increased frequency of whorl fingerprint patterns, reticulate lip print patterns, and O-positive blood types in patients with chronic periodontitis. In contrast, healthy participants showed greater rates of ulnar loops, Type I lip prints, and A-positive blood type.

Conclusion: Genetically determined characteristics such as fingerprint patterns, lip print patterns, and ABO blood groups can be utilized to evaluate the risk of periodontitis in an individual.

Keywords: ABO blood group system; dermatoglyphics; forensic pathology; periodontitis.

Myth busting-Dental beliefs

Author: Sajid Ali 3rd year BDS.

Abstract

Background: Oral health is a cornerstone of general well-being, yet it remains overshadowed by deeply rooted myths and misconceptions. These beliefs, often derived from cultural traditions, misinformation, or fear, contribute to delayed treatment-seeking and foster behaviors that worsen preventable oral health problems.

Objective: This study aims to identify and analyze prevalent dental myths, explore their historical and cultural origins, and assess their psychological impact on patient attitudes, decision-making, and trust in dental professionals.

Methods: A critical review of contemporary literature was undertaken to evaluate common misconceptions, including beliefs such as “tooth extraction weakens eyesight,” “scaling damages teeth,” and “toothache resolves without treatment.” The review synthesized evidence on the origins, persistence, and health implications of these myths, with a focus on their influence on oral health-seeking behavior.

Results: Findings revealed a significant disconnect between clinical evidence and public perception, with myths continuing to act as barriers to effective oral health promotion. Misconceptions were found to increase anxiety, discourage timely care, and undermine confidence in dental professionals, thereby negatively affecting long-term outcomes. The study highlights that systematic myth-busting, supported by culturally sensitive education and communication strategies, is essential to correct misinformation and build trust.

Conclusion: Myth-busting in dentistry is not merely an academic exercise but a public health imperative. Dispelling misconceptions through evidence-based awareness campaigns and professional-patient engagement can reduce fear, strengthen oral health practices, and improve overall outcomes, ultimately contributing to healthier and more informed communities.

Key Words: Dental myths, Oral health misconceptions, Patient behavior, Evidence-based dentistry, Health education, Cultural beliefs

Impact of Bottle Feeding Vs Breast Feeding on Early Childhood Caries

Authors: Urooj Fatima, Maria Hassan

3rd Year BDS

Abstract

Background: Breastfeeding is natural method of feeding infants directly from the mother's breast. It provides complete nutrition, antibodies for immunity, and supports healthy growth and development. Exclusive breastfeeding is recommended for the first 6 months of life, with continued breastfeeding up to 2 years of age. Bottle-feeding, on the other hand, involves feeding infants with milk or formula through a bottle and teat. While it can be convenient, especially when breastfeeding is not possible, bottle-feeding is often associated with a higher risk of dental caries.

Objective: To evaluate the impact of breastfeeding and bottle-feeding on dental caries in the primary dentition.

Methods: Study was conducted [August to September 2025 at Muhammad Medical and Dental College (MDC), Mirpurkhas, Department of Community Dentistry, Children aged 6–24 months were included after parental consent, while those with systemic illnesses or dental anomalies were excluded, oral hygiene, and sugar intake were collected through a structured questionnaire. Clinical dental examinations were performed under proper lighting using mouth mirror.

Results: A total of 100 participants were surveyed. The majority of respondents expressed the opinion that breastfeeding should be preferred over bottle feeding for infants. Most participants highlighted breastfeeding as the more beneficial and natural method of infant feeding, while only a smaller proportion considered bottle feeding as an acceptable alternative.

Conclusion: Prolonged bottle-feeding, especially when combined with sugary liquids, increases the risk of dental caries. Breastfeeding, when practiced within the recommended duration, is generally not associated with higher caries risk.

Keywords: breastfeeding, bottle-feeding, primary dentition

Assessment of strategies to support dental hygiene among students of Ibn-e-Sina University (ISUM)

Authors: Muhammad Ali Abdullah BDS 2nd Year MDC (Presenter)

Abdullah Riaz BDS 2nd Year MDC

Supervisor: Prof Dr. Farzana Majeed, Director Research ISUM

Abstract:

Objective: This study aims to assess the effectiveness of strategies implemented to support dental hygiene among students of ISUM, identifying strengths, weaknesses, and areas for improvement.

Abstract: Good oral health is the foundation of a healthy smile and a healthy life. As future healthcare professionals, dental students at Isra Medical University (ISUM) play a vital role in promoting dental hygiene practices not only among themselves but also in the broader community. This study aims to assess the effectiveness of strategies implemented to support dental hygiene among ISUM students, with a focus on identifying what works, what doesn't, and areas for improvement.

Materials and methods: Our mixed-methods approach combined surveys, interviews, and observations to gather insights into students' dental hygiene practices, awareness, and perceptions of current support strategies in students of ISUM.

Results: We found that while students generally had a good grasp of dental hygiene principles, there were noticeable gaps in putting these principles into practice. Interactive workshops and peer-led education programs emerged as particularly effective in engaging students and fostering good oral health habits.

However, our study also highlighted challenges, including limited resources and inconsistent reinforcement of dental hygiene practices. These findings underscore the need for a multifaceted approach to supporting dental hygiene among ISUM students. By building on what works and addressing the identified gaps, ISUM can enhance its dental hygiene programs, ultimately contributing to better oral health outcomes for its students and the community they serve.

This research contributes to the growing body of evidence on effective strategies for promoting dental hygiene among students. Future studies could explore the long-term impact of dental hygiene interventions and innovative ways to overcome resource constraints. Our findings offer valuable insights for educators, policymakers, and healthcare professionals seeking to support the oral health of students and promote a culture of wellness.

Conclusion: By prioritizing dental hygiene and supporting students in developing good oral health practices, ISUM can empower the next generation of healthcare professionals to make a positive impact on their patients' lives.

Keywords: Dental hygiene, Oral health promotion, Dental students, Preventive dentistry, Health education,

Evaluating the Effectiveness of Mobile Applications in Enhancing Oral Hygiene Practices among Dental Students: A Comprehensive Analysis of App Features and User Engagement

Authors: Muhammad Mustafa, Dr. Doha, Saif, Dr. Nosheen Zafar, Dr. Madiha

Supervised by: Prof. Farzana Majeed Director Research ISUM

Abstract

Background: Maintaining optimal oral hygiene is fundamental for dental professionals, yet even dental students often struggle with consistent adherence to recommended practices. As digital health interventions become increasingly prevalent, mobile applications present a promising avenue for promoting oral health behaviors among this unique population.

Objective: This study aimed to evaluate the effectiveness of mobile applications in improving oral hygiene practices among Bachelor of Dental Surgery (BDS) students at MDC-ISUM, identify the most beneficial app features, and assess the relationship between app usage and oral health knowledge implementation.

Methods: A cross-sectional survey was conducted among 250 BDS students across all academic years using a structured questionnaire. The survey assessed current oral hygiene routines, mobile app usage patterns, perceived effectiveness of apps, and preferred features. Additionally, participants' oral hygiene practices were clinically evaluated using the Plaque Control Record (PCR) and Gingival Index (GI).

Results: The study found that 68% of BDS students used mobile applications for oral health purposes, with higher usage among senior students ($p < 0.05$). App users demonstrated significantly better PCR scores (mean 18.4% vs. 27.3%, $p < 0.01$) and GI scores (mean 0.32 vs. 0.51, $p < 0.01$) compared to non-users. The most valued app features included personalized reminders (87%), progress tracking (82%), and evidence-based educational content (79%). A significant positive correlation was found between frequency of app usage and improvement in oral hygiene practices ($r = 0.72$, $p < 0.001$).

Conclusion: Mobile applications significantly enhance oral hygiene practices among dental students, with specific features contributing to their effectiveness. Integrating these tools into dental education could promote better self-care practices among future dental professionals, potentially influencing their approach to patient education in clinical practice.

Keywords

Mobile applications, oral hygiene, dental students, behavior change, digital health, oral health promotion, educational technology

The Effect of Chewing Gum on Temporomandibular Joint (TMJ) Functions among the medical students of Ibn- e- Sina University of Mirpurkhas

Syed Maheen¹, khekasha², Maryam shareef³ and Syed farhanuddin⁴

Abstract

Background: The temporomandibular joint (TMJ) plays an essential role in chewing, speaking, and jaw movement. Chewing gum is a widespread habit, especially among young people, but prolonged or frequent chewing may exert excessive stress on the TMJ leading to pain, clicking sounds, and restricted jaw movement.

Methodology: A cross-sectional study was conducted at Ibn e Sina University involving medical and allied health students from MBBS, BDS, DBT, and Nursing programs. A total of 300 questionnaires were distributed, and 200 were returned, yielding a 66.7% response rate. Data were analyzed on software Graph Pad : FISHER'S EXACT TEST test was applied to determine the P value.

Results: Of the 200 participants, 90 were male (45%) and 110 female (55%). TMJ-related symptoms were frequently reported, with pain in 110 students (55%), rigidity in 80 students (40%), and popping in 50 students (25%). Females exhibited a slightly higher prevalence of TMJ symptoms compared to males. The findings suggest that frequent gum chewing may contribute to TMJ discomfort and dysfunction.

Conclusion: Chewing gum appears to be a potential risk factor for TMJ pain, rigidity, and clicking. Increasing awareness and preventive strategies may reduce the burden of TMJ problems.

Keywords: , Chewing gum , Medical students Popping, Rigidity, Pain, Temporo-Mandibular joint

Assessment of depression by using AKUADS among hosteller's healthcare undergraduates of Rural Sindh

Authors: Muhammad Waqas Chatta, Dr. Taqdees Maryam

Supervisor: Dr. Kiran Fatima Mehboob Ali, Department of Medical Education

Abstract:

Background:

Transitioning to university and living away from family in hostels (or dormitories) are important milestones that can significantly impact students' academic outcomes and mental health. Recent studies report rising prevalence of anxiety, depression, and stress among undergraduates, and growing evidence that housing conditions and residential environments (including overcrowding, quality of facilities, social support, and homesickness) relate to both mental well-being and academic performance

Objectives: To assess depression among healthcare undergraduates hosteller's by using AKUADS. To examine the relationship between hostel living conditions, academic performance, sleep hours, and depression among undergraduate students

Methodology: A sectional study was conducted among healthcare undergraduates of Ibn-e-Sina University, Mirpurkhas (ISUM), from August 1, 2025, to September 15, 2025, after obtaining ethical approval from ISUM (ERB-08/2025). Informed consent was taken, and the rationale was explained to all the participants before the commencement of this study. A questionnaire was developed with the help of one-on-one discussions with students who avail of campus residency, including demographic data, hostel living conditions, academic performance, and sleeping hours. For mental well-being, the validated Aga Khan University Anxiety and Depression Scale (AKUADS) was used. The data was entered on SPSS version 27. For demographic variables, descriptive statistics were used. Chi-square or Fisher's exact test was used to find the association between hostel evaluation items and the presence or absence of depression. The p-value < 0.05 was considered statistically significant.

Results: The response rate was 60%. A total of n=120 participants, of whom n=76 (63.6%) was female and n=44 (36.7%) were male. The mean age of the participants was $20.35 \pm$ SD 1.9 years. The mean sleeping hours for students in the hostel were $7.46 \pm$ SD 0.221. The prevalence of depression was 86% in this study,

Conclusion: This study highlights the high prevalence of anxiety and depression in Hostelite undergraduates of ISUM.

**MUHAMMAD INSTITUTE OF PHYSIOTHERAPY AND REHABILITATION SCIENCES
(MIPRS)**

Students' post-examination feedback on computer-based examination (CBE) in Ibn-e-Sina University Mirpurkhas

Authors: Naseem Fatima, Hamna (Fourth year DPT)

Supervisor: Dr. Ramzana Chang, Co-supervisor: Paras Dal

Background: Post-examination feedback from students is a valuable tool for educators to understand learners' experiences, perceptions, and challenges related to assessments. This feedback typically covers aspects such as exam difficulty, clarity of questions, time allocation, fairness, and technical issues especially in computer-based exams. It helps identify areas where students struggled, their preparedness, and emotional responses like stress or confidence. Collecting and analyzing this feedback enables institutions to improve exam design, provide better support, and enhance teaching methods. Ultimately, student feedback fosters a more transparent, student-centered assessment process that promotes continuous learning and quality improvement.

Ibn-e-Sina University established in 2023 Conducted Computer based examinations of DPT the aim of this study to get feedback from students for further improvement of quality.

Methodology: It was a cross-sectional study student were asked about examination content and difficulty, Examination environment and time management and technology support by customized questioner. Only those students were included who given examinations in Ibn-e-Sina University.

Results: 59% of students found the exam content completely or mostly relevant to class material. Most rated the exam difficulty as moderate (45%), with only 8% finding it difficult or very difficult. 53% said all or most questions were clearly stated, though 15% found some or many questions unclear. 12% reported encountering out-of-syllabus questions. 58% found the marking scheme clear or somewhat clear; 8% said no scheme was provided.

66% felt the exam duration was sufficient or just enough. 50% rated invigilation as well-organized and fair. 43% had no technical issues in computer-based exams; 3% faced major issues affecting performance. 60% were very satisfied or satisfied with the overall exam experience. 8% were neutral or dissatisfied.

Conclusion: The post-examination feedback indicates that the majority of students had a positive experience with the exam. Most students found the exam content relevant and the difficulty moderate. Over half reported clear questions, though some noted clarity and syllabus issues. The marking scheme and time were generally adequate. Invigilation was rated fair, technical problems were minimal, and 60% expressed overall satisfaction with the exam experience.

Students learning outcomes and feedback on Clinical case study presentation in DPT program

Authors: Fatima Zehra and Laiba Khokhar (final year DPT)

Supervisor: Dr. Ramzana Chang, Co-Supervisor: Urooba Fatima

Abstract

Background: Physiotherapy training is based on clinical education as it is the point between theoretical and professional practice. The clinical case study presentations are one of the most effective pedagogical strategies where critical thinking, clinical reasoning, and evidence-based decision-making will be developed among the students. These presentations give the learners a platform to examine real or simulated patient situations, apply classroom concepts to clinical situations, and solve problems together. The knowledge of the role of clinical case study presentation in the learning outcomes and professional growth is necessary in order to better the teaching strategies and the adaptation of the curricula to the international standards. Thus, it is essential to consider the experiences of the students at the Muhammad Institute of Physiotherapy and Rehabilitation Sciences, Ibn-e-Sina University, Mirpurkhas, particularly, 3rd year, 4th year and final year Doctor of Physiotherapy (DPT) program.

Methodology: A Self-made customized questioner administrated in DPT 3rd, 4th and 5th year. Students were being asked about outcomes and feedback on case study as learning method. Students other the DPT was excluded from study data was analyzed using SPSS.

Results: The case study presentation received overwhelmingly positive feedback from students, with the majority strongly agreeing that it enhanced their clinical reasoning, decision-making, and communication skills. Over 85% of respondents consistently reported that the activity helped them apply evidence-based practice, integrate theoretical knowledge with clinical findings, and consider holistic patient factors. Students also highlighted improved confidence, peer collaboration, and respect for diverse perspectives. Notably, 94% felt the case study bridged the gap between classroom learning and clinical practice, and many appreciated constructive faculty feedback.

Conclusion: The case study presentation proved to be a highly effective educational tool, significantly enhancing students' clinical reasoning, decision-making, and communication skills. The majority of students strongly agreed that the activity helped them integrate theoretical knowledge with clinical practice, apply evidence-based interventions, and adopt a patient-centered approach. It also fostered collaboration, confidence, and respect for diverse perspectives.

Students preferred teaching methods in undergraduate students of Ibn-e-Sina University Mirpurkhas

Authors: Haleema & Preh (Final year DPT Student)
Supervisor: Dr. Ramzana Chang, Co-Supervisor: Dr. Zoha

Abstract

Background:

In recent years, the quality of education in higher learning institutions has been under increasing scrutiny, especially in developing regions such as Pakistan. One of the key aspects affecting educational outcomes is the **teaching methodology** employed in undergraduate programs. Students' academic engagement, comprehension, and performance are closely tied to how the content is delivered. At the **Ibn-e-Sina University (ISUM), Mirpurkhas**, understanding students' preferred teaching methods is essential for improving the overall learning experience and academic performance. Determining the preferred teaching methods of undergraduate students at ISUM, Mirpurkhas is essential to enhance the quality of education. It will not only inform institutional policy but also foster a more inclusive, engaging, and effective learning environment that responds to the actual needs of students in this region.

Methodology: A Cross- sectional study in which customized questionnaire was distributed among undergraduate students of Ibn-e-Sina University including MBBS, BDS, DPT and BBA Data were analysed using SPSS.

Results: Total 100 students participated 55 % from DPT, 31 % from MBBS and 12% from BDS 76 % thought that blended learning save time, 78% are agreed that in blended learning the have feasibility to access learning material. 77% students like simulation and real life case learning 78 % students feel organize using LMS and online learning tools.

Conclusion: Majority of students enjoy more with experiential learning and comfortable with digital learning while they are also in good conjunction with blended and collaborative learning.

Use of Artificial intelligence in Posture correction Systematic Review

Students Group: Amna Mumtaz, Hamna (final year DPT)

Supervisor: Dr. Ramzana Chang PT, **Co-Supervisor:** Dr. Vivika

Abstract

Background: Artificial Intelligence (AI) has increasingly integrated into physiotherapy, enhancing treatment efficacy and accessibility. Poor posture is a prevalent musculoskeletal issue linked to pain, fatigue, and reduced quality of life. Traditional posture assessment and correction methods often require expert supervision, limiting accessibility and scalability. Recent advances in artificial intelligence (AI), particularly in computer vision and machine learning, have enabled real-time posture monitoring and feedback systems using affordable devices. Technologies such as pose estimation (e.g., Media Pipe, Open Pose) and deep learning models are increasingly integrated into fitness, rehabilitation, and ergonomic applications. This systematic review aims to explore and synthesize current evidence on the effectiveness and accuracy of AI-based posture correction systems.

Methodology: A systematic review was conducted by analyzing peer-reviewed articles published in the last decade from databases such as PubMed, National library, Research Gate, Medline, Europe PMC, web of Science and Scopus. We included studies focusing on AI-driven methods use for posture correction.

Results: Recent RCTs (2024–2025) show that AI-based posture correction systems—using pose estimation, mobile apps, or telerehabilitation—can improve functional outcomes, exercise form, and reduce pain. Across varied populations, AI interventions performed as well as or better than traditional methods, highlighting their growing role in posture and movement correction. Technologies such as pose estimation (e.g., Media Pipe, Open Pose) and deep learning models are increasingly integrated into fitness, rehabilitation, and ergonomic applications.

Conclusion: AI-based posture correction systems, including pose estimation, mobile coaching apps, and telerehabilitation platforms, demonstrate promising results in improving movement quality, reducing pain, and enhancing exercise performance.

Key words: Artificial Intelligence in Physiotherapy, Posture correction, Systematic review.

Precision medicine and the fall of one size fits all: a cross-sectional study among final year medical students

Students group: Huda Abdullah, Karina (Final year DPT)
Supervisor: Dr. Ramzana Chang Co-Supervisor: Dr. Shumaila

Abstract

Background: Precision medicine focuses on giving the right treatment to the right person at the right time, rather than using the same treatment for everyone with the same diagnosis. This approach applied when traditional “one-size-fits-all” method, failed. The term among health care students found unfamiliar about the concept the always associate with genetics, it also involves other important factors like lifestyle, environment, and personal health history of patient. These all contribute to making better treatment decisions and can even help in preventing diseases before they develop. This study explores the awareness and understanding of precision medicine among final-year healthcare students, and how it might be applied in clinical settings to improve both education and patient care.

Methodology: A cross-sectional study was conducted among 100 Final year medical student in Ibn-e-Sina university Mirpur Khas for data collection a custom-designed questionnaire was developed for this research, consisting 20 close-ended and open-ended questions, the data was analysis by using statistical product and service solution (SPSS version 20) summarized by descriptive statics which was presented using (frequency , percentage, means, standard deviation) and Z score test . Statistical significance was set up $p < 0.05$.

Result: A total of 100 healthcare professional students participated in this study. More than half ($n = 58$, 58.5 %) reported having information about precision medicine (PM) from the internet and curriculum and they are comfortable with their knowledge. And the other half ($n = 41$, 41.4 %) didn't have any idea about PM due to lack of awareness and support but they expressed having an interest in a precision medicine through research, seminars and workshops .department, level of study, awareness of Precision medicine were significantly associated with students insight, perspective, and interpretation of precision medicine ($p = 0.0438$) $p = (0.0438 < 0.05)$.

Conclusion: Final year health care student aware of precision medicine in clinical practice, majority were comfortable with their knowledge which shows in their attitude and perception. Our findings point out to a significant knowledge gap of the other halves that need to be addressed through curriculum updates, educational workshops. And clinical exposure

**Annual Audit of Diagnostic Services at Muhammad Medical College Hospital, Mirpurkhas
(July 1, 2024 – June 30, 2025)**

Dr Hyder Ali Pehilwani

Sr.No	Serves Name	Sale Qty
1	24 HOURS CREATININE	2
2	24 HOURS PROTEIN	3
3	A/G RATIO TEST	9
4	ABGS (ARTERIAL BLOOD GASES) TEST	31
5	AFP (ALFA FHETO) TEST	45
6	ALBUMIN	69
7	ALBUMIN TEST	186
8	ALKALINE PHOSPHATE TEST	1
9	AMYLASE TEST	155
10	APTT TEST	932
11	ASCITIC FLUID CS	16
12	ASCITIC FLUID D/R	127
13	ASOT (ANTISTREPTOLYSIN O TITER) TEST	4
14	BETA HCG	59
15	BILIRUBIN TOTAL (DIRECT + INDIRECT)	393
16	BIOPSY TEST (ANY SIZE)	411
17	BIOPSY TEST (ANY SIZE) CITY BRANCH	248
18	BLEEDING TIME BT TEST	41
19	BLOOD ARRANGE	420
20	BLOOD ARRANGE (W.PT)	312
21	BLOOD ARRANGE 2 POINT	16
22	BLOOD ARRANGE WITH SCREENING	975
23	BLOOD C/S	482
24	BLOOD GROUP	2,388
25	BLOOD SCREENING (HBSAG, HCV, HIV) U. S	1
26	BUN (BLOOD UREA NITROGEN)	5
27	CA 125	27
28	CALCIUM	158
29	CALCIUM TEST (SERUM)	349
30	CBC, CP FILM	7,834
31	CHOLESTEROL	87
32	CKMB (CREATINE KINASE-MB)	1
33	COOMBS	16
34	COVID TEST	3
35	CPK (CREATINE PHOSPHO KINASE)	3
36	CREATININE TEST	184
37	CREATININE SPOT PROTEIN RATIO	17
38	CROSS MATCH	699
39	CRP	109
40	CRP TEST	358

41	CSF CS (CEREBROSPINAL FLUID) TEST	8
42	CSF DR (CEREBROSPINAL FLUID) TEST	35
43	CT CLOTTING TIME	35
44	CYTOLOGY (ANY)	11
45	D-DIMER	12
46	DENGUE ANTIBODY IGM, IGG (ICT)	26
47	DENGUE NS-1 RAPID	29
48	DENGUE NS-1 RAPID TEST	24
49	ELECTROLYTES TEST	412
50	ESR TEST	431
51	FBS	117
52	FLUID DR (ANY) TEST	2
53	FNAC (FINE NEEDLE ASPIRATION CYTOLOGY)	71
54	FSH (FOLLICLE STIMULATING HORMONE)	24
55	FT3 TEST	6
56	FT4 TEST	21
57	FUNGUS DIRECT SMEAR	1
58	GAMMA GT TEST	1
59	GRAM STAINING TEST	1
60	H PYLORI ANTIGEN (STOOL)	146
61	H PYLORI SERUM TEST	13
62	HB (HAEMOGLOBIN)	82
63	HB (HEMOGLOBIN) TEST	14
64	HBA1C	421
65	HBA1C O.D SUGAR CAMP	82
66	HBEAB (DEVICE METHOD)	3
67	HBEAG	4
68	HBSAG ELISA	5
69	HBSAG (HEPATITIS-C) (ELISA)	18
70	HBSAG PRE-OPERATIVE PT TEST	1
71	HBSAG TEST	11
72	HBSAG+HCV (DEVICE METHOD)	2,642
73	HBV (HEPATITIS B VIRUS) VIRAL LOAD PCR TEST	25
74	HBV PCR LIVER CLINIC	8
75	HCV (HEPATITIS-C) ICT	4
76	HCV AB (ELISA)	2
77	HCV B ELISA TEST	1
78	HCV ELISA	8
79	HCV PCR TEST	17
80	HCV RNA VIRAL LOAD PCR / QUANTITATIVE	114
81	HCV VIRAL LOAD TEST (QUANTITATIVE)	5

82	HDL (HIGH DENSITY LIPOPROTEINS) CHOLESTEROL	1
83	HDV DELTA TEST (HEPATITIS D VIRUS)	3
84	HIGH VAGINAL SWAB C.S	8
85	HIGH VAGINAL SWAB CYTOLOGY	1
86	HIV (HUMAN IMMUNODEFI VIRUS)	2
87	HIV AIDS ELISA	2
88	HIV AIDS TEST (DEVICE METHOD)	1,723
89	HIV ANTIGEN (ELISA)	2
90	ICT DENGUE	5
91	ICT MP (MALARIA PARASITES)	509
92	INSULIN LEVEL	2
93	IRON LEVEL	14
94	L.C BLOOD C.P	9
95	L.C HBA1C	2
96	L.C HBSAG (ELISA)	1
97	L.C HBSAG / HCV (ELISA)	5
98	L.C HBSAG / HCV (RAPID)	17
99	L.C HBV (PCR) VIRAL LAOD	3
100	L.C HBV / HCV (PCR) VIRAL LOAD	1
101	L.C HCV (PCR) VIRAL LOAD	33
102	L.C HDV (ANTIBODY)	1
103	L.C LFTS (07 PARA)	7
104	L.C PT (INR)	2
105	L.C TSH	2
106	LDH	22
107	LDL- CHOLESTEROL	1
108	LFT (LIVER FUNCTION TESTS)	1,280
109	LH	25
110	LIPID PROFILE TEST	139
111	MANTOUX TEST (M.T)	56
112	MP TEST (MALARIA PARASITE)	61
113	O.D TRIGLYCERIDES SUGAR CAMP	7
114	OCCULT BLOOD (STOOL)	45
115	OGTT (ORAL GLUCOSE TOLERANCE TEST)	6
116	PAP SMEAR TEST	20
117	PHOSPHOROUS TEST	2
118	PHOSPHORUS	5
119	PLATELET COUNT	1
120	PLEURAL FLUID DR	9
121	POTASSIUM TEST	36
122	PROLACTIN	14

123	PROTEIN TEST	8
124	PSA (PROSTATIC SPECIFIC ANTIGEN)	14
125	PT (INR) TEST	2,183
126	PUS FOR C/S (CULTURE AND SENSITIVITY)	62
127	PUS FOR CS MARKETING SAMPLE	55
128	RA (RHEUMATOID) FACTOR	1
129	RA FACTOR QUANTITATIVE	20
130	RBS	2,924
131	RBS FREE FOR SUGAR CAMP	556
132	RETICULOCYTE COUNT	15
133	S.IGE	28
134	SEMEN FOR C/S CULTURE AND SENSITIVITY	1
135	SEMEN FOR D/R	17
136	SERUM CREATININE O.D SUGAR CAMP	76
137	SERUM FERRITIN TEST	21
138	SGPT (ALT) TEST	6
139	SPUTUM FOR AFB	47
140	SPUTUM FOR AFB (3 DAYS)	1
141	SSP FNAC (FINE NEEDLE ASPIRATION CYTOLOGY)	1
142	STOOL DR (DETAIL REPORT)	226
143	STOOL FOR CS (CULTURE AND SENSITIVITY)	4
144	STOOL OCCULT BLOOD	4
145	STOOL RED / SUGAR TEST	8
146	T3 (TRIIODOTHYRONINE) TEST	2
147	T4 (THYROXINE) TEST	48
148	TESTOSTERONE LEVEL TEST	6
149	THYROID PROFILE (T3, T4, TSH)	103
150	TOTAL PROTIEIN	6
151	TRIGLYCERIDES	1
152	TROP T TEST	267
153	TROPONIN - I	594
154	TSH (THYROID-STIMULATING HORMONE)	243
155	TYPHOID	16
156	U/C/ELECTROLYTE	1,901
157	U/CREATININE	606
158	UREA TEST	28
159	URIC ACID	145
160	URINE (ALBUMIN)	12
161	URINE ALBUMIN	96
162	URINE C/S (CULTURE & SENSITIVITY) (HVS)	338
163	URINE DR	3,594

164	URINE KETON BODIES	27
165	URINE P.T (PREGNENCY TEST)	192
166	URINE PROTEN	3
167	VBGS (VENOUS BLOOD GASES) TEST	2
168	VDRL (VENEREAL DISEASE RESEARCH LABORATORY) TEST	2
169	VIT B12 (VITAMIN B12)	38
170	VITAMIN D TOTAL (25-OH) D2+D3	84

Sr.No	Service Name	Sale Qty
1	X-RAY - ABDOMEN	17
2	X-RAY - ABDOMEN (KUB)	25
3	X-RAY - ABDOMEN ERECT & SPINE	79
4	X-RAY - ABDOMEN SUPINE & ERECT	25
5	X-RAY - ANKLE	7
6	X-RAY - ANKLE JOINT	6
7	X-RAY - BARIUM MEAL	9
8	X-RAY - BARIUM MEAL FOLLOW THROUGH	11
9	X-RAY - BARIUM SWALLOW	1
10	X-RAY - CERVICAL ONE FILE	8
11	X-RAY - CERVICAL SPINE AP/LAT	52
12	X-RAY - CHEST	1,389
13	X-RAY - CHEST (AP VIEW)	59
14	X-RAY - CHEST (PA VIEW)	575
15	X-RAY - D/S (DORSAL SPINE) AP	2
16	X-RAY - D/S (DORSAL SPINE) AP&LAT	2
17	X-RAY - D/S (DORSAL SPINE) LAT	6
18	X-RAY - ELBOW BOTH AP/LAT.	12
19	X-RAY - ELBOW JOINT AP/LAT.	13
20	X-RAY - FEET BOTH AP/LAT	1
21	X-RAY - FEMUR AP/LAT.(ONE EXPOSURE)	8
22	X-RAY - FINGER	3
23	X-RAY - FISTULOGRAM	1
24	X-RAY - FOOT AP/LATERAL	21
25	X-RAY - FOOT FT	24
26	X-RAY - FULL PELIS	25
27	X-RAY - HAND	25
28	X-RAY - HAND AP/LATERAL	10
29	X-RAY - HEEL AP/LT	9
30	X-RAY - HIP JOINT	12
31	X-RAY - HIP JOINT AP VIEW	4
32	X-RAY - HUMERUS	7
33	X-RAY - HYSTEROSALPINGO GRAPHY	1
34	X-RAY - IVP (intravenous pyelogram) (NON IONIC)	2
35	X-RAY - KNEE RT/LT	11
36	X-RAY - KUB (KIDNEY, URETER & BLADDER)	208
37	X-RAY - L/S (LUMBOSACRAL SPINE) AP	3
38	X-RAY - L/S (LUMBOSACRAL SPINE) AP/LAT	49
39	X-RAY - L/S (LUMBOSACRAL SPINE) LAT	3
40	X-RAY - LEG RT/LT	20

41	X-RAY - LOOPOGRAM	2
42	X-RAY - MEMOGRAPHY (BOTH)	1
43	X-RAY - MEMOGRAPHY (SINGLE)	8
44	X-RAY - NECK	12
45	X-RAY - OPG (Orthopantomogram)	47
46	X-RAY - PNS (PARANASAL SINUS) AP/LT (1 FILM)	38
47	X-RAY - PORTABLE	28
48	X-RAY - R/U (Radius Ulna)	2
49	X-RAY - RIGHT ANKLE AP/LAT	11
50	X-RAY - SHOULDER JT AP/LAT	18
51	X-RAY - SKULL	8
52	X-RAY - SPINE CER.AP/LAT	2
53	X-RAY - SPINE D.L.AP/LAT	2
54	X-RAY - SPINE L.S AP/LAT	6
55	X-RAY - T/F	8
56	X-RAY - THARACO LUMBAR SPINE 1 FILE	5
57	X-RAY - THARACO LUMBAR SPINE 1 FILM	7
58	X-RAY - THIGH	13
59	X-RAY - TIBIA FIBULA	4
60	X-RAY - WRIST JOINT	7
61	X-RAY - WRIST JOINT AP/LAT	3
62	X-RAY - WRIST RT/LT	2

Sr.No	Service Name	Sale Qty
1	ULTRASOUND - ABDOMEN	992
2	ULTRASOUND - ABDOMEN & PELVIS	637
3	ULTRASOUND - ABDOMEN & PROSTA	8
4	ULTRASOUND - ABDOMEN (BOTH SIDES)	2
5	ULTRASOUND - BRAIN	12
6	ULTRASOUND - BREAST	2
7	ULTRASOUND - BREAST (BOTH)	22
8	ULTRASOUND - CHEST	19
9	ULTRASOUND - COLOR DOPPLER FWB	17
10	ULTRASOUND - DOPPLER LEG	13
11	ULTRASOUND - F.W.B	881
12	ULTRASOUND - GUIDED ASCTIC TAP	1
13	ULTRASOUND - GUIDED LIVER ABSCESS & DRAINAGE	1
14	ULTRASOUND - GUIDED PLEURAL FLUID DRAIN	3
15	ULTRASOUND - K.U.B	226
16	ULTRASOUND - NECK	17
17	ULTRASOUND - PELVIS	479
18	ULTRASOUND - R+S MANDIBULAR REGIONS	1
19	ULTRASOUND - SWELLING	2
20	ULTRASOUND - TESTES & SCROTUM	16

Sr.No	Service Name	Sale Qty
1	CT SCAN - ANY JOINT PLAIN	3
2	CT SCAN - BRAIN PLAIN	507
3	CT SCAN - BRAIN PLAIN & BONE WINDOW	30
4	CT SCAN - BRAIN PLAIN & CONTRAST	3
5	CT SCAN - BRINE DIRECT CONTRAST	2
6	CT SCAN - BRINE PLAIN & CONTRAST	2
7	CT SCAN - C/S + D/S + L/S SPINE CONTRAST	1
8	CT SCAN - C/S + D/S + L/S SPINE PLAIN	1
9	CT SCAN - CHEST	9
10	CT SCAN - CHEST & ABDOMEN CONTRAST	23
11	CT SCAN - CHEST CONTRAST	15
12	CT SCAN - CHEST HRCT (HIGH-RESOLUTION COMPUTED TOMOGRAPHY) PLAIN	7
13	CT SCAN - FACE & NECK CONTRAST	7
14	CT SCAN - III PHASE LIVER STUDY	3
15	CT SCAN - KUB CONTRST	4
16	CT SCAN - KUB PLAIN	46
17	CT SCAN - LOWER ABDOMEN PLAIN	5
18	CT SCAN - LOWER ABODOMEN (PELVIS) CONTRAST	5
19	CT SCAN - NECK CONTRAST	1
20	CT SCAN - NECK PLAIN	6
21	CT SCAN - NECT + CONTRSRT	2
22	CT SCAN - ORBITS CONTRAST	6
23	CT SCAN - PNS PLAIN	5
24	CT SCAN - TRIPHASE LIVER CONTRAST	5
25	CT SCAN - UPPER ABDOMEN CONTRAST	25
26	CT SCAN - UPPER ABDOMEN PLAIN	6
27	CT SCAN - WHOLE ABDOMEN CONTRAST	22
28	CT SCAN - WHOLE ABDOMEN PLAIN	70



IBN-E-SINA UNIVERSITY, MIRPURKHAS

1. MUHAMMAD MEDICAL COLLEGE, MIRPURKHAS
2. MUHAMMAD DENTAL COLLEGE, MIRPURKHAS
3. MUHAMMAD INSTITUTE OF PHYSIOTHERAPY
4. MUHAMMAD INSTITUTE OF BUSINESS ADMINISTRATION
5. MUHAMMAD COLLEGE OF NURSING
6. MUHAMMAD INSTITUTE OF PARAMEDICAL TRAINING
7. MUHAMMAD MEDICAL COLLEGE HOSPITAL
8. MUHAMMAD MEDICAL COLLEGE HOSPITAL (CITY BRANCH)

27th Annual Medical Symposium 2025

AMS-ISUM 2025

September 29th-October 3rd, 2025

**THEME: ENHANCING QUALITY ASSURANCE AT A NEW UNIVERSITY
IN RURAL PAKISTAN .**