

Professor Muhammad Zafar

M.B.B.S., M.Phil., Ph.D., **Certified Simulation healthcare Educator (USA)**

Professor of Anatomy/Skills Lab

Chairman, Department of Clinical Skills

College of Medicine, Alfaisal University,

P.O Box 50927, Takhassusi Road, Al-Maathar Area,

Riyadh-11533, Saudi Arabia

MEMBERSHIPS

Member, Association for Medical Education in Europe (AMEE)

Member, American Association of Anatomists (AAA)

Member, Society for Simulation in Healthcare

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H- index = 6

RESEARCH FOCUS

Anatomy, Histology, Curriculum Development, Simulation-based-medical education

TRAINING (CERTIFICATION):

- **Certificate; Simulation Instructor Course**, from Center for Advanced Pediatric & Perinatal Education (CAPE), College of Medicine, **Stanford University, Stanford, California, USA 2017**
- **Certificate; Advance Instructor course** from Center for Medical Simulation (CMS), Harvard, Massachusetts, USA 2021

INTERESTS:

Curriculum Integration, Anatomy (Histology & Embryology), Medical Education (Clinical Skills & Simulation-based education), Reading, Travel

SKILLS:

- Excellent leadership & organizational skills
- Ability to plan, develop, and implement new academic programs
- Ability to plan, develop, integrate, and implement curriculum
- Ability to create and sustain a strong network outside the College with the aim of facilitating the process of education, training, and research activities.
- Ability to establish strategic directives, aims and policies related to the educational process and research activities within the College, and all its departments.
- Ability to set & achieve goals
- Ability to build trust with colleagues & administration by having Excellent Interpersonal communication skills
- Excellent teaching skills including different educational strategies e.g. traditional lecture based, PBL, TBL and simulation based inter professional education
- Ability to use innovative teaching methodologies
- Ability to use a computer to deliver presentations (Word, PowerPoint®, Animation)
- Knowledge of Moodle (computerized student information system)
- Ability to draft and edit academic Writing materials (research)
- Languages: Fluent in English, Urdu, Limited Proficiency in Arabic

STRENGTHS:

- Academic Competence
- Innovative Teaching approach
- Curriculum Planning, designing & Integration
- Organization and administration

PROFESSIONAL EDUCATION:

Ph. D. (Anatomy) 2002-03; Baqai Medical University, Karachi

M.Phil. (Anatomy) 1994; Basic Medical Sciences Institute (BMSI), Jinnah Post Graduate Medical Centre, University of Karachi, Pakistan established by Indiana University

MBBS, 1989, Liaquat Medical College, Jamshoro, Hyderabad, University of Sindh, Pakistan

HONORS/ AWARDS:

- 1. Winner of Faculty Awards for Research Excellence 2017 (Alfaisal University, Riyadh, Saudi Arabia; announced on June-12, 2017)**
- 2. “Teacher of the year award”**
1990-92: Baqai Medical University
2009 & 2010: Faculty of Medicine, King Fahad Medical City, Riyadh.
- 3. “Best teacher evaluation for Basic Sciences Courses”**
(1997-2003): Department of Continuing Medical Education (CME), College of Physicians & Surgeon, Pakistan (CPSP) for Teaching Anatomy in Basic Medical Sciences Courses.

APPOINTMENTS/POSITIONS HELD DURING DIFFERENT JOBS

- A. At College of Medicine, Al-Faisal University Riyadh, K.S.A., from September 10, 2011, till Date:**
1. **Chairman**, Department of Clinical Skills -----Reporting to the Dean College of Medicine
 2. **Professor** of Anatomy
 3. **Member College Board**
 4. **Member** curriculum committee
 5. **Member** of Counselling and skills developing unit (CSDU) of Alfaisal University
 6. **Member** of Simulation Steering committee of King Faisal Specialist Hospital & Research Center (KFSH & RC)
 7. **In charge of the** Histology Section of Anatomy Department (2011-2021)
 8. **Course Director/Organizer** of Foundation block (2012-2017)
 9. **Course Director & Supervisor of 5 clinical skills courses** (Communication skills course, basic clinical skills course and 3 integrated clinical skills courses)
 10. **Director** of Clinical Simulation Center
 11. **Director** of Clinical skills Program
 12. **Director** of Standardized Patient (SP) Program
- B. At Faculty of Medicine, King Fahad Medical City, K.S.A., from June 26, 2007, to July 12, 2011:**
1. **Professor** of Anatomy
 2. **Director** of Clinical Skills Center
- C. At College of Medicine, Qasim University, K.S.A., from September 2003 to 25 June 2007:**
1. **Associate Professor** of Anatomy
- D. At Baqai Medical University, Karachi, Pakistan**
1. **Professor & Head**, Department of Anatomy from 01/03/2002 to August 2003
 2. **Vice Dean**, Postgraduate Medical Institute (P.G.M.I.), from 14/04/2001 to August 2003
 3. **Associate Professor**, Department of Anatomy, 01/04/1999 to 28/02/2002
 4. **Assistant Professor**, Department of Anatomy, from January 1995 to 31/03/1999
 5. **Lecturer**, Department of Anatomy, from September 1990 to June 1992
- E. At College of Physicians & Surgeon Pakistan (CPSP)**
1. **Visiting Professor** from 1998-2003
 2. **Exam reviewer & Paper setter** from 1998-2003
- F. At Jinnah Post Graduate Medical Center (J.P.M.C.), Karachi, Pakistan**
1. **Master of Philosophy (M. Phil.) student:** from September 1992 to December 1994
- G. At Dow Medical College, Karachi, Pakistan:**
1. **Demonstrator**, Department of Anatomy, from June 1992 to September 1992
- H. Internship (House Jobs):**
1. **Resident House Officer** in Pediatric Medicine Department at National Institute of Child Health (N.I.C.H.), J.P.M.C., Karachi, Pakistan from February 1990 to August 1990

2. **Resident House Officer** in Pediatric Surgery at Civil Hospital, Karachi, Pakistan from July 1989 to January 1990.

ACADEMIC/ADMINISTRATIVE EXPERIENCE:

- A. Teaching: (Undergraduate & Postgraduate)----- 36-Years**
 - A. Anatomy (Gross/Applied/Clinical Anatomy)
 - B. Histology (Functional)
 - C. Neuroanatomy
 - D. Embryology
 - E. General Anatomy
 - F. Clinical Skills
- B. Administration: ----- 26-Years**
As departmental head, vice dean, vice principal, chairman, director of programs/courses
- C. Simulation Based Curriculum ----- 19-years**
 - Faculty of Medicine, King Fahad Medical City, Riyadh, Saudi Arabia, **2007-11**
 - College of Medicine, Alfaisal University, Riyadh, Saudi Arabia, **2011-till date**
- D. PBL Curriculum ----- 23-Years**
 - College of Medicine Qasim University, Saudi Arabia, **2003-07**
 - Faculty of Medicine, King Fahad Medical City, Riyadh, Saudi Arabia, **2007-11**
 - College of Medicine, Alfaisal University, Riyadh, Saudi Arabia, **2011-till date**
- E. TBL Curriculum ----- 15-Years**
College of Medicine, Alfaisal University, Riyadh, Saudi Arabia, **2011-till date**

ACHIEVEMENTS during the job at College of Medicine, Al-Faisal University Riyadh, K.S.A.

1. **Established** Master of Science in health care simulation program in collaboration with Massachusetts General Hospital (MGH) Institute of Health Professions (IHP) which is Harvard affiliated degree awarding institute in 2022.
2. **Established** a new Department of Clinical Skills (**DOCS**)
3. **Established** a new clinical simulation center equipped with low-high fidelity simulators, advanced A/V system and an eOSCE system.
4. **Developed** an innovative integrated clinical skills program consists of five semester long courses offered from Semester I-VI
5. **Designed & developed** standardized patient program
6. **Designed & developed** structured & integrated curriculum (Anatomy, PBL, TBL, Simulation-based education)
7. **Established a new Histology lab** equipped with the most advanced digital slide scanner, scanning electron microscopes, light microscopes, and microscopic slides etc.

Responsibilities as Prof. of Anatomy in the Anatomy Department:

1. **To teach Gross Anatomy on cadavers, Histology, Neuroanatomy, Embryology & General Anatomy** to undergraduate pre-clinical (Year-1, II, & I II) medical students via lectures, labs., tutorials, seminars, PBLs & TBLs and to teach graduate students in different graduate programs and to teach Anatomy & Histology to graduate students.
2. **To supervise** graduate students

3. **Organizer/Director** Introductory/Foundation Block, for Six consecutive years; from 2011-2016
4. Applying various assessment methods for formative and summative evaluations (One best type of MCQs, True/false type of MCQs, MEQs, mini-problems, short essays, structured essays, port folios, reflective reports, laboratory assessments, written assignments, OSPEs, OSCEs, field visits etc.
5. **Established a new Histology lab** equipped with the latest digital slide scanner, scanning electron microscopes, light microscopes, and microscopic slides etc.
6. To Facilitate **PBLs**
7. To facilitate **TBLs**
8. **To review** exam questions
9. **To contribute** to departmental research
10. **To mentor** students individually and in groups

Responsibilities as the Chairman of the department of clinical skills & medical simulation

1. Established a new Simulation Centre equipped with advanced high-fidelity simulators, and A/V setup
2. Installed a software based OSCE system in the department of Clinical Skills
3. Design courses for undergraduate & graduate students
4. Establish a Teaching assistants (TAs) training program
5. Acquiring Simulation center certification
6. Acquiring Simulation center accreditation
7. Manage and supervise all the department manpower and resources
8. Supervise the performance and distribute the duties to all department members
9. Applying the quality assurance measures
10. Official communication according to the department charter
11. Submit all the technical and administrative reports related to the department
12. Liaise with the appropriate administrative teams for teaching to ensure appropriate room bookings and session times are negotiated
13. Planning, maintaining, and developing the department functions and determining future needs
14. Plan for department curriculum
15. Evaluate the effectiveness of the educational events and the technical support related clinical skills
16. Develop innovative clinical skills teaching sessions for all faculty clinical programs
17. Supervising and contributing to standardized patient program
18. Writing and marking or reviewing the examination questions on clinical skills including OSCEs
19. Writing and developing scenarios for clinical skills lab teaching & simulated patients
20. Writing clinical skills learning objectives for different courses
21. Organize workshops to train academic and clinical staff in the teaching of clinical skills to faculty students, including:
 - a. OSCE Examiner training, including how to mark OSCEs
 - b. Tutor training for small group teaching in clinical skills
 - c. Teaching practical Skills on the clinical Skills courses
22. Carry out research in medical education in the field of clinical skills & medical

simulation

23. Collaborate with other departments of the college of Medicine to organize courses, workshops, symposium etc.
24. Collaborate with other colleagues from college of Medicine and even outside to establish a postgraduate medical education program

PUBLICATIONS:

1. Aslam M, Khan M, **Zafar, M**
Prevalence survey of diabetes and study of its risk factors, J Baqai Med Uni. Vol.3, No. 1 & 2, Jan-Jun; July-Dec **2000**:25-29
2. **Zafar M.**, Mughal, I.A.
Distribution of cell types of islets of Langerhans in the pancreas of albino rats. Professional vol.09 (01):71-77, **2002**
3. Khalid Fahim Yasin, **Zafar M.**, Misbah Islam Khan Sherwani., Abdul Rauf Laghari., Masood Ahmed Mujahid., Akbar Mamoon
Anti-Smoking Scenario in Pakistan. J Surg Pak. **Jan 2003**;8(2):30-31.
4. Kaim Khani Z A, **Zafar M**, Khan MM, Al-Fayz M.
Absence of Musculocutaneous Nerve and Distribution of Median Nerve to Muscles of the Anterior Compartment of the arm P.M.J. **2006**-vol- No.2:121-122
5. **Zafar M.**, Naqvi N. H., Ahmed M., Kaim Khani Z.A.
Altered Liver Morphology and Enzymes in Streptozotocin Induced Diabetic Rats. Int. J. Morphol., 27(3): 719-25, **2009**
6. **Zafar M.**, Naqvi N. H., Ahmed, M. Kaim Khani Z. A
Kidney Morphology and Enzymes in Streptozotocin Induced Diabetic Rats. Int. J. Morphol., 27(3): 783-90, **2009**
7. Shaikh, M. A., Naqvi, S. N. H, **Chaudhry, M. Z.**
Effects of Neem oil on the structure and functions of the mature male albino rat testes. Braz. J. Morphol. Sci., vol.26, no. 1, p.49-54, **2009**
8. Kaim Khani Z A, Ahmed M., Al-Fayez, M, **Zafar M**, Javaid, A
Does the existing Traditional Undergraduate Anatomy Curriculum Satisfy the Senior Medical Students? A retrospective Evaluation, Einstein.**2009**; 7(3 Pt 1):341-6
9. **Zafar, M.**, N. H. Naqvi
Effects of STZ-Induced diabetes on the relative weights of kidney, liver and pancreas of albino rats, A comparative study, Int. J. Morphol., 28(1): 135-142, **2010**
10. Al-Fayez, M. A., Kaim Khani, Z. A., **Zafar, M.**, Darwish, H., Aldahmash, A., Al- Ahaideb, A.A.
Multiple Arterial Variations in the Right Upper Limb of a Caucasian Male Cadaver, Int. J. Morphol., 28(3): 659-65, **2010**
11. Yaqinuddin A., **Zafar M.**, Ikram M F., Ganguly P.
What is an Objective Structured Practical Examination (OSPE) in Anatomy? Anat Sci Edu 6:125-133 (March/April **2013**)
12. **Zafar M.**, Yaqinuddin A., Ikram F. and Ganguly
Practical Examinations-OSPE, OSCE and Spot, In: "Education in Anatomical Sciences" Ed. Ganguly, PK. Nova Publishers, New York, **2013**. ISBN 978-1-62618-488-6; pp. 223-237.

13. **Zafar M., Otaibi N.**
Clinical Skills: How best can we deliver? In: Health and Disease: "Curriculum for the 21st Century Medical Students". Ed. Ganguly, PK. Nova Publishers, New York, **2014**. ISBN 978-1-63463-052-8; pp. 139-157.
14. Alotaibi N., Oker N., **Zafar M.**, AL-Qahtani K H., Higham H.
"Surgical Training in Saudi Arabia: Trainees' Perspectives and the Role of Simulation" International Journal of Surgery Open 1 (**2015**) 1-4
DOI: <http://dx.doi.org/10.1016/j.ijso.2015.08.001>
15. Shabnam Ahmed, Najwa Al-Mously, Fahmi Al-Senani, **Muhammad Zafar & Muhammad Ahmed**
Medical teachers' perception towards simulation-based medical education: A multicenter study in Saudi Arabia". Medical Teacher, **2016**, 38: S37–S44
16. **Muhammad Zafar**, A'man Talal Inayah, Mohammad Abrar Shareef, Alaa MZ, Aldalati, Nasir Ali Afsar, Ahmed Abu-Zaid, Fatimah Zafar & Haya Jamal Azouz
"Evaluation of a Combined Approach of Clinical Skills Training Utilizing Near-Peers, In-Campus Faculty and Clinicians: An Innovative Integrated Model" Medical Teacher, **2016**, 38: S52–S59
17. Ahmed Yaqinuddin, Muhammad Ikram, **Muhammad Zafar**, Nivin Sharaf Eldin, Muhammad Atif Mazhar, Sadia Qazi, Aftab Ahmed Shaikh, Akef Obeidat, Khaled Al-Kattan, Paul K. Ganguly
"Integrated Clinical Anatomy Program (ICAP) at Alfaisal University: An innovative model of teaching clinical applied functional anatomy in a hybrid curriculum", Adv Physiol Educ 40:56-63,**2016**;
doi:10.1152/advan.00153.2015.
18. **Zafar M.**
"Medical students' perceptions of the effectiveness of integrated clinical skills sessions using different simulation adjuncts", Adv Physiol Educ 40: 514–521, **2016**; doi:10.1152/advan.00097.2016
19. **Zafar M.**
"To investigate alterations in the levels of Transaminases, Alkaline Phosphatase and Pseudocholinesterase in Pancreas, Kidney and Liver of STZ- induced diabetic rats" Submitted for publication in Journal of Ayub medical college # 1992-5612-1-RV
20. Inayah AT, Anwer LA, Shareef MA, Nurhussen A, Alkabbani HM, AlZahrani AA, Obad AS, **Zafar M**, Afsar NA
"Objectivity in Subjectivity: Do Students' Self and Peer Assessments Correlate with Examiners' Subjective and Objective Assessment in Clinical Skills? A Prospective Study" BMJ Open 2017 May 9; 7(5): e012289. doi:10.1136/bmjopen-**2016**-012289
21. Abdullah AlShammari, A'man Inayah, Nasir Ali Afsar, Akram Nurhussen, Amna Siddiqui, Muhammad Lucman Anwer, Sadek Obeidat, Mohammed Khaled Bakro, Tawfik Samer Abu Assale, Eyad Almidani, Abdullah Alsonbul, Sami Alhaider, Ibrahim Bin Hussain, Emad Khadawardi, **Muhammad Zafar**
"Evaluation of effectiveness of a Pediatric Simulation Course in Procedural Skills for Pediatric Residents – A Pilot Study" JPMA vol.68, No.2: 240-46; February **2018**

22. Adam S. Obad, Fathiah H. Schacfe, Ahmed A. Peeran, Amal I. Abdeh, Reham I. Alhomoudi, A'man Inayah, Nasir Afsar, Mohammad Abrar Shareef, **Muhammad Zafar**
 "Preclinical Medical Students' Career of Choice: Existing Facts and Driving Factors" Submitted for publication in Medical Teacher
23. Shoukat Ali Arain, Nasir Ali Afsar, Dileep Kumar Rohra, **Muhammad Zafar**
 "Learning clinical skills through audiovisual aids embedded in electronic-PBL sessions in undergraduate medical curriculum: perception and performance Physiol Educ 43: 378–382, **2019**. doi:10.1152/advan.00075.2019
24. **Zafar M**, Afsar NA, Obeidat MA, Siddiqui AS, Zafar F, Boumatar A
 "Optimum deliberate practice reduces stress and improves confidence to perform invasive procedural skills among undergraduate medical students" Submitted for publication in Teaching and Learning in Medicine Journal
25. Yazed Albogami, Abdulaziz Alhashemy, Saud Alharbi, Khalid Aldawsari, Khaled Alsaygh, Saud Alzahrani, Meshari Alhashemy, **Muhammad Zafar**, Abdullah Alzahrani
 "Assessment of Public Awareness and Perception Toward Obesity and Bariatric Surgery Safety for Weight Loss Among Saudi Adults in Riyadh City".
 International Journal of Medicine in Developing Countries
2021;5(2):001–009. <https://doi.org/10.24911/IJMD.51-1610306741>
26. Cynthia Mosher, Fareeda Mukhtar, Nuha AlNaami, Yara Akkielah Joud Alsharif, Tariq Khan, Huseyin Cahit Taskiran, **Muhammad Zafar**
 "Donning and Doffing of Personal Protective Equipment: Perceived Effectiveness of Virtual Simulation Training to Decrease COVID-19 Transmission and Contraction". (**March 07, 2022**) Cureus 14 (3): e22943.DOI 10.7759/cureus.22943
27. Fareeda Mukhtar, Nuha AlNaami, **Muhammad Zafar**
 "Measuring the use of self-regulated learning strategies for undergraduate medical students during COVID-19 pandemic" Study in Progress with IRB approval # IRB-20069.
28. Fareeda Mukhtar^{#1}, Mohammed F Shaheen^{#2,3}, Abdulrahman Y Alhabeeb^{2,3}, **Muhammad Zafar**¹, Khaled Al-Kattan¹
 " **Impact of Simulation-Based Surgical Training in Laparoscopy on Satisfaction Level and Proficiency in Surgical Skills**" Adv Med Educ Pract. 2025 Feb27;16:357-366.i: 10.2147/AMEP.S492321. eCollection 2025.

BOOKLETS PUBLISHED:

1. Physiology of Cardiovascular system for undergraduate students. **Published in 1984**
2. Forensic Medicine and Toxicology for undergraduate medical students in **1986**.
3. Histology- Lecture notes and Review; **Published in 2000**

CURRENT RESEARCH PROJECTS:

PROJECTS IN MEDICAL EDUCATION & SIMULATION:

Several active projects in Clinical Simulation/ Medical Education to explore student learning, student psychology, curriculum design, and objective assessment

1. Fareeda Mukhtar, Nuha AlNaami, **Muhammad Zafar**
“Measuring the use of self-regulated learning strategies for undergraduate medical students during COVID-19 pandemic” Study in Progress with IRB approval # IRB-20069 dated 19-10-2020
2. Developing the professional clinical skills courses evaluation tool: validity and reliability study
3. Clinical Examiners’ Reflection about a newly developed eOSCE System: An innovative experience at Alfaisal University.
4. Objective Performance Evaluation (OPE) – an effective way to motivate learning among medical students
5. Scenario-Based Simulation sessions bridge the gap between Pre-clinical and Clinical Phases in Undergraduate Medical Curriculum
6. Role of standardized patients in clinical skills training and assessment
7. “Using Video demonstration as a standardization tool for Clinical Skills Training” project
8. “Simulation Based Clinical Skills Sessions Enhances Students Motivation to Learn and Use Their Self-Regulated Learning Strategies Over Online Teaching Imposed by COVID-19 pandemic; Alfaisal University Experience”
9. Comparison of effectiveness of abdominal examination using manikins vs standardized patients for 3rd year pre-clinical students

WORKSHOPS FACILITATED:

1. **Zafar M**, Afsar N A.
Workshop: “How to integrate basic clinical skills and simulation adjuncts in an Undergraduate pre-clerkship medical curriculum?” at 3rd Clinical Simulation Conference **2016**, Dubai, UAE held in Dubai, UAE, 23-25
2. **Zafar M**, Afsar N A.
Workshop: “How to integrate basic clinical skills and simulation adjuncts in an Undergraduate pre-clerkship medical curriculum?” at 5th SIMEC (Saudi International Medical Education Conference) held at Alfaisal University, Riyadh, Saudi Arabia from April 8th-12th, **2016**
3. **Zafar M**, Afsar N A.
Workshop: “How to integrate basic clinical skills and simulation adjuncts in an undergraduate pre-clerkship medical curriculum?” at Arab Simulation Conference in Medical Education (ASCME), The University of Jordan, Amman, 5-7 October **2016**
4. **Zafar M**, Afsar N A.
Workshop: “How to integrate basic clinical skills and simulation adjuncts in an Undergraduate medical curriculum?” to be presented at 14th Asia Pacific Medical Education Conference (APMEC), at Yong Loo Lin School of Medicine, National University of Singapore, 11-15 January **2017**, Singapore.

5. Zafar M

Workshop titled, "Integrating Simulation in a Medical Curriculum" at Fazaia Ruth Pfau Medical College Karachi as a part of International Medical Education Conference (IMECon) organized by College of Physicians & Surgeons Pakistan on Friday, **January 6, 2023**.

INVITED LECTURES/ CONFERENCE PRESENTATIONS:

1. From 49th **Basic Medical Sciences course** (May 1999) to 60th **Basic Medical Sciences course** (2003) At College of Physicians & Surgeons Pakistan as visiting Professor.
2. **1st state of Art Pediatric International Conference (SAPIC)**, Held on December 01-05, **2012**, at King Fahad Cultural Center, Riyadh, Saudi Arabia.
3. **1st UAE Clinical Simulation Conference 2014**, "Simulation-A storyboard for training" held on 26-27 February 2014 at Khalaf Ahmad AL Habtoor Medical Simulation Center, Dubai, United Arab Emirates
4. **Arab Simulation Conference** in Medical Education (ASCME), The University of Jordan, Amman, 5-7 October 2016 as invited guest speaker and facilitate a workshop
5. 14th Asia Pacific Medical Education Conference (**APMEC**) -11-15 January **2017** National University of Singapore, Yong Loo Lin School of Medicine, National University Health System, Singapore to facilitate a workshop
6. **First** Chemical Senses Course titled, "Chemical Senses, an introduction to Physiology & pathology" held at Otolaryngology Head and Neck Surgery and Communication Sciences Department, King Faisal Specialist Hospital & Research Centre, Riyadh from **21 - 22 November 2017**
7. International Medical Education Conference (**IMECon**) organized by College of Physicians & Surgeons Pakistan on Friday, **January 6, 2023**, at Fazaia Ruth Pfau Medical College Karachi.

RESEARCH GRANTS:

1. **IRG Project Title:** To investigate extent of deliberate practice required to reduce stress among medical students while performing common invasive clinical procedures.
IRG Project number: 313260209155
Duration: 18 months
Amount funded: 50,000 SR
2. **IRG Project Title:** Assessing surgical residents' satisfaction and proficiency level in laparoscopic skills in Riyadh, Saudi Arabia
IRG Project number: 21308 dated 08-03-2021
Duration: 18 months
Amount funded: 50,000 SR
3. **IRG Project Title:** To investigate "Donning and Doffing of Personal Protective Equipment: Perceived Effectiveness of Virtual Simulation Training to Decrease COVID-19 Transmission and Contraction".
Duration: 18 months
Amount funded: 10,000 SR

ORAL/POSTER PRESENTATIONS AND PUBLISHED ABSTRACTS:

1. 32nd Annual Medical Symposium of J.P.M.C. (1994)
2. 1st Annual Symposium of Baqai Medical University (1998)
3. **Zafar, M.**
Evaluation of Implementation of Problem Based Learning (PBL) at Faculty of Medicine, KFMC, RIYADH at 7th International Medical Education Conference (IMEC) held from Wednesday 24th-Friday 26th- 2010 at International Medical University, Bukit Jalil, Kuala Lumpur Malaysia.
4. **Zafar, M.**
Innovation in Teaching and Learning Clinical Skills at Faculty of Medicine, FOM, KFMC, RIYADH at the 6th Congress of the Asian Medical Association (AMEA), held on 23-26th March 2011 at International Medical University, Bukit Jalil Kuala Lumpur Malaysia.
5. **Zafar, M.**
Clinical Skills Center at Faculty of Medicine, KFMC, RIYADH at the 6th Congress of the Asian Medical Association (AMEA), held on 23-26th March 2011 at International Medical University, Bukit Jalil Kuala Lumpur Malaysia.
6. **Zafar, M.**
"Perception of dissection among Saudi medical students" at "Holistic approach in Medical and Health Sciences Education" conference held on December 2-3, 2011 at the Li Ka Shing Faculty of Medicine, the University of Hong Kong
7. **Zafar, M.**
"How to Establish a Simulation Center", Guest speaker at Ist state of Art Pediatric International Conference (SAPIC), Held on December 01-05, **2012** at King Fahad Cultural Center, Riyadh, Saudi Arabia.
8. Ahmed, S., Al Senani.F., Ahmed, M., **Zafar, M.**, Alabdaly, AH.
"Medical teacher's attitudes towards simulation-based medical education in Riyadh, Saudi Arabia: opportunities and Challenges" at the 11th Asia Pacific Medical Education Conference (APMEC), held on 15-18 January **2014** at NUS, Singapore)
9. **Zafar M.**
"Course PRO-VI: Utilization of Hospital Facilities with Concurrent Use of a Simulation Lab for the Development of Professional Skills" at 9th International Medical Education Conference (IMEC-2014), held on 11-13 March **2014** at International Medical University (IMU), Kuala Lumpur, Malaysia.
10. Khan M. T., Salam Y. Y., Hussain W., **Zafar M.**
"Media based education at College of Medicine, Alfaisal University; an innovative approach" at 5th Annual Student Research Day Poster Competition, Held on 10-04-**2014** at College of Medicine, Alfaisal University, Riyadh
11. Sakkalaik B. B., Almakadma Y., Altinawi B., **Zafar M.**
"Effectiveness of Using Student- Written Textbook on Student's Understanding" at 5th Annual Student Research Day Poster Competition, Held on 10-04-**2014** at College of Medicine, Alfaisal University, Riyadh
12. **Zafar M**, A'man Talal Inayah, Mohammad Abrar Shareef, Alaa MZ Aldalati, Nasir Ali Afsar, Ahmed Abu-Zaid, Fatima Zafar, Haya Jamal Azouz
"A combined approach of clinical skills training utilizing near-peers, ,in-campus faculty and clinicians: an innovative integrated model" presented at Saudi Health

- Simulation (SHC) Conference 2015, HELD ON 9TH-11TH June **2015**, at Alfaisaliyah Hotel, Riyadh, Saudi Arabia.
13. **Zafar M**, Al-Kattan W M
 "Utilization of Hospital Facilities with Concurrent Use of Clinical Simulation Center for the Development of Clinical Skills" presented at Saudi Health Simulation (SHC) Conference **2015**, HELD ON 9TH-11TH June 2015, at Alfaisaliyah Hotel, Riyadh, Saudi Arabia.
 14. **Zafar M**.
 "Student's Perception towards Simulation Sessions, Use of Simulation Adjuncts and Difficulties towards Implementation during Integrated Clinical Skills Courses" presented at Saudi Health Simulation (SHC) Conference 2015, HELD ON 9TH-11TH June **2015**, at Alfaisaliyah Hotel, Riyadh, Saudi Arabia.
 15. **Zafar M**, Al-Kattan W M
 "Clinical Simulation Center at College of Medicine, Alfaisal University, Riyadh" presented at Saudi Health Simulation (SHC) Conference **2015**, HELD ON 9TH-11TH June 2015, at Alfaisaliyah Hotel, Riyadh, Saudi Arabia.
 16. A'man Talal Inayah, Afsar N A. **Zafar M**,
 "Objectivity in Subjectivity: Student's Self and Peer Assessment in Correlation with Examiner's Subjective and Objective Assessment in Clinical Skills" at Second SCHS International Conference, Held in Riyadh on **April 2015**.
 17. **Zafar M**, Afsar N A.
 "Clinical Examiners' Reflection about a newly developed eOSCE System: An innovative experience at Alfaisal University" at International Conference on Technology in Higher Education, **June 14-17, 2015**, Hivernage, Marrakesh, Morocco
 18. **Zafar M**, A'man Talal Inayah, Mohammad Abrar Shareef, Alaa MZ Aldalati, Nasir Ali Afsar, Ahmed Abu-Zaid, Fatima Zafar, Haya Jamal Azouz
 "A Combined Approach of Clinical Skills Training Utilizing Near-Peers, In-Campus Faculty and Clinicians: An Innovative Integrated Model" at AMEE **Sept. 9-11, 2015**, Glasgow
 19. Akram Nurhussen, A'man Talal Inayah, Amna Shoaib Siddiqui, Fatima Babiker Ali Babiker, Nasir Ali Afsar, **Muhammed Zafar**
 "Impact of a Semester-long Course on the Knowledge, Attitude, and Practice of Communication Skills on First Year Medical Students" at AMEE **Sept. 9-11, 2015**, Glasgow
 20. **Zafar M**
 "Student's Perception towards Simulation Sessions, Use of Simulation Adjuncts and Difficulties towards Implementation during Integrated Clinical Skills Courses" at Ottawa & ANZAHPE conference, Perth Australia, 19-23rd March **2016**
 21. **Zafar M**, Afsar N A.
 "Student's Perception towards Simulation Sessions, Use of Simulation Adjuncts and Difficulties towards Implementation during Integrated Clinical Skills Courses" at 3rd Clinical Simulation Conference 2016, Dubai, UAE held in Dubai, 23-25Feb., **2016**
 22. Kulsoom B, Afsar N A., **Zafar M**,
 "**Does Gender influence outcomes among medical Students?**" at 5th SIMEC (Saudi International Medical Education Conference) held at Alfaisal University,

- Riyadh, Saudi Arabia from April 8th-12th, **2016**
23. Adam S. Obad, Ahmed A. Peeran, Amal I. Abdeh, Fathiah N. Shacfe, Mohammad A. Shareef, Aman Inayah, Nasir Afsar, **Muhammad Zafar**.
 “Factors influencing preclinical medical students’ specialty preference” at 5th SIMEC
 (Saudi International Medical Education Conference) held at Alfaisal University, Riyadh, Saudi Arabia from April 8th-12th, **2016**
 24. **Zafar M**, Afsar N A
 “Simulation bridges the gap between Pre-clinical and Clinical Phases in Undergraduate Medical Curriculum” at Arab Simulation Conference in Medical Education (ASCME), The University of Jordan, Amman, 5-7 October **2016**
 25. Afsar N A, **Zafar M**
 “Perceived Effectiveness of Pre-Clerkship Professional Skills Courses in developing Clinical Skills in Medical Clerks, Interns and Residents” presented at 14th Asia Pacific Medical Education Conference (**APMEC**) -11-15 January **2017** National University of Singapore, Yong Loo Lin School of Medicine, National University Health System, Singapore
 26. **Zafar M**, Afsar NA, Obeidat MA, El-Hossainy AH, Zafar F, Siddiqui AS
 “Deliberate practice reduces stress and improves confidence to perform invasive procedural skills among undergraduate medical students” presented at 12th International Medical Education Conference (**IMEC-2017**) 7-9 April-2017, held at International Medical University, Kuala Lumpur, Malaysia.
 27. **Zafar M**, Afsar N A
 “Integrating simulation in medical curriculum – An experience of using workshops for faculty development” presented at 4th International **conference on faculty development in health professions-AMEE** from Friday 25- Sunday 27th, August 2017 held at Messukeskus Expo and Convention Centre, Helsinki, Finland.
 28. Afsar N A, **Zafar M**
 “Integrated Clinical Skills Sessions in Undergraduate Curriculum Bridge the Gap between Pre-Clinical and Clinical Phases” presented at 4th International **conference on faculty development in health professions-AMEE** from Friday 25- Sunday 27th, August 2017 held at Messukeskus Expo and Convention Centre, Helsinki, Finland.
 29. **Zafar M**, Afsar N A
 “Deliberate practice reduces stress and improves confidence to perform invasive procedural skills among undergraduate medical students” presented at 4th International **conference on faculty development in health professions-AMEE** from Friday 25- Sunday 27th, August 2017 held at Messukeskus Expo and Convention Centre, Helsinki, Finland.
 30. **Zafar M**, Afsar N A, Obeidat MA, El Hossainy AH, Zafar F, Siddiqui AS
 “Deliberate practice reduces stress and improves confidence to perform invasive procedural skills among undergraduate medical students” presented at **AMEE**, 2017 from Saturday 26- Wednesday 30th, August 2017 held at Messukeskus Expo and Convention Centre, Helsinki, Finland.
 31. Afsar N A, **Zafar M**
 “Integrating simulation in medical curriculum – An experience of using workshops for faculty development” presented at **AMEE**, 2017 from Saturday 26-

- Wednesday 30th, August 2017 held at Messukeskus Expo and Convention Centre, Helsinki, Finland.
32. Siddiqui AS, Nurhussen A, Inayah AT, Afsar NA, **Zafar M**
 "Impact of a Semester-long Course on the Knowledge, Attitude, and Practice of Communication Skills on First Year Medical Students" presented at **AMEE**, 2017 from Saturday 26- Wednesday 30th, August 2017 held at Messukeskus Expo and Convention Centre, Helsinki, Finland.
 33. Siddiqui AS, Nurhussen A, Inayah AT, Afsar NA, **Zafar M**
 "Impact of a Semester-long Course on the Knowledge, Attitude, and Practice of Communication Skills on First Year Medical Students" presented at 18TH **OTTAWA/ICME Conference**, from Saturday 10th - Wednesday 14th, March 2018 held at Abu Dhabi National Exhibition Center, Abu Dhabi.
 34. Fareeda Mukhtar, Mohammed F Shaheen, **Muhammad Zafar**, Khaled Al-Kattan
 "The Satisfaction of General Surgery Residents with Laparoscopic Surgical Training in Riyadh, Saudi Arabia, A Call for Simulation-Based Education" presented at Saudi Society of Simulation Scientific Assembly (SSSSA-21) December 6-9. **2021** held at Saudi Arabia.
 35. Fareeda Mukhtar, Nuha Alnaami, **Muhammad Zafar**
 "Simulation Based Clinical Skills Sessions Enhances Students Motivation to Learn and Use Their Self-Regulated Learning Strategies Over Online Teaching Imposed by COVID-19 pandemic; Alfaisal University Experience" presented at Saudi Society of Simulation Scientific Assembly (SSSSA-21) December 6-9. **2021** held at Saudi Arabia.
 36. Cynthia J. Mosher, Fareeda Mukhtar, Nuha Alnaami, Yara Akkielah, Joud Alsharif, Tariq Khan, Huseyn Cahit Taskiran, **Muhammad Zafar**
 "Donning and Doffing of Personal Protective Equipment: Perceived Effectiveness of Virtual Simulation Training to Decrease COVID-19 Transmission and Contraction" presented at Saudi Society of Simulation Scientific Assembly (SSSSA-21) December 6-9. **2021** held at Saudi Arabia.
 37. Mohieddin Albarazi, Maya Soufan, Huseyin Cahit Taskiran, Cynthia Joan Mosher, Muhammad Zafar
 "Using Video demonstration as a standardization tool for Clinical Skills Training" abstract submitted for presentation at 27th Annual Meeting of Society for Simulation in Europe, 15-17 June **2022**. FIBES, SEVILLE, Spain
 38. Fareeda Mukhtar, Nuha Alnaami, Muhammad Zafar
"Simulation-Based Clinical Skills Sessions Enhances Students Motivation to Learn and Use Their Self-Regulated Learning Strategies Over Online Teaching Imposed by COVID-19 pandemic; Alfaisal University Experience."
bearing the abstract Id no SIMEC
2022-280 accepted as **E-Poster** for **SIMEC 2022** (Hybrid) to be held on 15-16 February 2022.

TRAININGS/ WORKSHOPS/ SEMINARS/ CONFERENCES ATTENDED:

1. Workshop on **educational planning and evaluation** at Baqai Medical University
2. Workshop on **M.C.Q. preparation** at Baqai Medical University
3. Workshop on **problem-based learning** at Baqai Medical University

4. Workshop on **One Best M.C.Q.** at Baqai Medical University
5. Workshop on **Teaching Skills** at Baqai Medical University
6. Workshop on **innovative methods** in teaching at Baqai Medical University
7. Workshop on **M.C.Q. preparation & designing a case scenario for P.B.L. sessions** hosted by the Aga Khan University at Karachi
8. Workshop on **Problem Based Learning** (A collaborative project of Govt. of Pakistan & W.H.O./EMRO AT Jinnah Post Graduate Medical Center, Karachi. 29th & 30th November 1999
9. Workshop on **Medical education attended** at Baqai Medical University, Karachi regarding:
 - a. Objective designing, Lectures & short group discussions, Descriptive items in exams. Structured lectures (Programmed & case based),
 - b. Designing Table of specifications, Horizontal and vertical integration
10. **1st International Conference on Medical Education** at Islamabad hosted by Baqai Medical University, December 20-24, 1995
11. **Staff Development Workshop in Community-Oriented Medical Education (COME), Problem Based Learning (PBL), and Educational Evaluation**, at College of Medicine, Al-Qassim University, K.S.A. by Prof. Bashir Hamad (Jan. 17-20, 2004)
12. **Staff Development Workshop on Design and Scoring of A-type M.C.Q. (One of Five)** at College of Medicine, Al-Qasim University, K.S.A. by Prof. Bashir Hamad (Sept. 5-6, 2004)
13. **Workshop on various aspects in Medical Education** by Prof. Ara Tekian and Dr. Syed Moin Aley at College of Medicine, Al-Qasim University, K.S.A. (March 5-6, 2005). It included:
 - a. Improving learning
 - b. Assessment in P.B.L. curriculum
 - c. P.B.L. & Classical curriculum: Comparison
 - d. Communication Skills
 - e. Role of P.B.L. Tutor and Tutorial Skills
 - f. Effective Clinical Teaching
 - g. Supervisory skills
14. **2nd Annual Workshop on Problem- Based Learning (PBL): An Innovative Approach to Medical Education**, at King Fahad Medical City, Riyadh as a **Speaker** (January 07-08, 2008)
15. First Saudi International Conference on Medical Education (**SIMEC 2008**), 27-30 April 2008 at FOM, King Fahad Medical City, Riyadh
16. **Conducted a PBL Mini Workshop** for the female staff of FOM, KFMC, Riyadh from December 02 to December 03, 2008.
17. **1st Riyadh Medical Education Club Meeting** held at King Fahad Medical City, Riyadh on 01-12-2008
18. **2nd Riyadh Medical Education Club Meeting** held at King Fahad Medical City, Riyadh on 25-01-2009
19. **4th Annual Workshop on Problem- Based Learning (PBL): An Innovative Approach to Medical Education**, at Faculty of Medicine, King Fahad Medical City, Riyadh (February 24-25, 2009; Safar, 29-30, 1430H)
20. **3rd Riyadh Medical Education Club Meeting** held at King Fahad Medical City, Riyadh on 01-03-2009

21. **Pre-Conference Workshop on Writing a Research Proposal** facilitated by Ray Peterson, University of Queensland, Australia, 1st April 2009 held in conjunction with Sixth International Medical Education Conference (IMEC-2009), 1-3 April 2009, International Medical University (IMU), Bukit Jalil Campus, Kuala Lumpur, Malaysia.
22. **Pre-Conference Workshop on Standard Setting in OSCE** facilitated by Sambandam Elango & Teng C L, International Medical University, Malaysia, 1st April 2009 held in conjunction with Sixth International Medical Education Conference (IMEC-2009), 1-3 April 2009, International Medical University (IMU), Bukit Jalil Campus, Kuala Lumpur, Malaysia.
23. **Sixth International Medical Education Conference (IMEC-2009)**, “Reflections on Innovations”, held at the International Medical University (IMU), Bukit Jalil Campus, Kuala Lumpur, Malaysia, on 1-3 April 2009
24. **Seventh International Medical Education Conference (IMEC-2010), attended as a Presenter**, held at the International Medical University (IMU), Bukit Jalil Campus, Kuala Lumpur, Malaysia, on 24-26 March 2010.
25. **The International Anatomical Sciences and Cell Biological (IASCB) Conference**, 26-29 May 2010, Singapore, held at the National University of Singapore.
26. **General Staff Orientation Course offered by the Academic and Training Affairs Department**, held at Faculty of Medicine, King Fahad Medical City, Riyadh on 7th December 2010
27. **3rd Clinical Teaching Workshop** held at King Fahad Medical City, Riyadh on 16-17 January 2011 (Prof. Kelly Michael Skeff, Georgette Stratos & Saima Chaudhry from Stanford University school of Medicine, USA)
28. **8th Asia Pacific Medical Education Conference (APMEC) held at the National University of Singapore from 26-30 January 2011**. Attended as a **Judge** for Best Abstract for Poster Presentation on Fri 28 Jan and as a participant.
29. **Association for Standardized Patient Educators (ASPE) Course on How to use Simulated and Standardized Patients (SPs) in your curriculum: Building a Successful SP Program** at the National University of Singapore from 26-27 January 2011 with the main (APMEC) conference.
30. **Sixth Congress of the Asian Medical Education Association (AMEA); Trends in Medical Education, attended as a Presenter**, held at the International Medical University (IMU), Bukit Jalil Campus, Kuala Lumpur, Malaysia, from 23-26 March 2011.
31. **1st Student Research Symposium**, held at Faculty of Medicine, King Fahad Medical City, Riyadh on 3rd May 2011
32. **1st state of Art Pediatric International Conference (SAPIC)**, Held on December 01-05, **2012**, at King Fahad Cultural Center, Riyadh, Saudi Arabia.
33. **1st UAE Clinical Simulation Conference 2014**, “Simulation-A storyboard for training” held on 26-27 February 2014 at Khalaf Ahmad AlHabtoor Medical Simulation Center, Dubai, United Arab Emirates
34. **9th International Medical Education Conference (IMEC-2014)** held on 11-13 March **2014** at International Medical University (IMU), Kuala Lumpur, Malaysia.
35. **Saudi Health Simulation (SHC) Conference 2015** held on 9TH-11TH June **2015**, at Alfaisaliyah Hotel, Riyadh, Saudi Arabia.
36. **International Conference on Technology in Higher Education, June 14-17, 2015**, Hivernage, Marrakesh, Morocco

37. **3rd UAE Clinical Simulation Conference** held in Khalaf Ahmed Habtoor Medical Simulation Center, Dubai Healthcare City, Dubai, UAE, 23-25 Feb. **2016**
38. **5th SIMEC (Saudi International Medical Education Conference)** held at Alfaisal University, Riyadh, Saudi Arabia from April 8th-12th, **2016**
39. **International Conference on Technology in Higher Education, June 14-17, 2016**, Hivernage, Marrakesh, Morocco
40. **Arab Simulation Conference in Medical Education (ASCME)**, The University of Jordan, Amman, 5-7 October **2016**
41. **14th Asia Pacific Medical Education Conference (APMEC)** -11-15 January **2017** National University of Singapore, Yong Loo Lin School of Medicine, National University Health System, Singapore
42. **12th International Medical Education Conference (IMEC-2017)-7-9 April**, International Medical University, Kuala Lumpur Malaysia
43. **Simulation Instructor Program (May 15-17, 2017)** at Center for Advanced Pediatric & Perinatal Education (CAPE), 700 Welch Road, Suite 200, Palo Alto, College of Medicine, Stanford University, Stanford, California 94304-5897, USA
44. **4th International conference on faculty development in health professions- AMEE** from Friday 25- Sunday 27th, August 2017 held at Messukeskus Expo and Convention Centre, Helsinki, Finland.
45. **AMEE**, 2017 from Saturday 26- Wednesday 30th, August 2017 held at Messukeskus Expo and Convention Centre, Helsinki, Finland.
46. **First TBL workshop** by Professor Larry Michaelsen held at College of Medicine, Alfaisal University, Riyadh from **November 14-15, 2017**
47. **18TH OTTAWA/ICME Conference**, from Saturday 10th - Wednesday 14th, March 2018 held at Abu Dhabi National Exhibition Center, Abu Dhabi.
48. **Saudi MED Competency Framework Workshop** held at College of Medicine, Alfaisal University, on Wednesday, **21st March 2018**.
49. **Saudi Health Simulation Conference 2018** held on 23-25 April 2018 at Four Seasons Hotel, Riyadh under the patronage of Director General of Training & Academic Affairs, Ministry of Health, Kingdom of Saudi Arabia (32 CME hours)
50. **Designing Course Blueprint** workshop by Dr. Mona Hamoud Alsheikh held on Monday, April 7th, 2018, at College of Medicine, Alfaisal University, Riyadh, Saudi Arabia
51. **Certificate; Advance Instructor course** from Center for Medical Simulation (CMS), Harvard, Massachusetts, February 2021 USA
52. **The 5th Saudi Health Simulation Conference 2022 (SHSC 22)** held on 06-10 November 2022 at The Crowne Plaza RDC, Riyadh under the patronage of Director General of Training & Academic Affairs, Ministry of Health, Kingdom of Saudi Arabia.