Dr Imran Amjad. PhD

Senior Research fellow, NZCC, New Zealand. Associate Professor/ Assistant Dean RARE Associate Dean post-graduate programs & research, RCRS. Faculty of rehabilitation & Allied health sciences. Islamabad, Pakistan.

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Gender Male Marital Status Married

• Language English, Urdu, Punjabi

Religion IslamNationality Pakistani

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Research Statement:

Dr Imran's areas of research interest include rehabilitation of Neurological and musculoskeletal conditions, Bio-mechanics, exercise physiology, and the systemic response of physical rehabilitation in different disorders. His MS physiology focused on investigating a possible role of the central inhibitory tone of GnIH in the onset of puberty in male mice.

His PhD focused on the effects of exercise on electroencephalogram parameters and cognitive functions in mild cognitive impairment patients.

He is expertise in following research techniques

S. No	Skills	Good	Very Good	Excellent	
Basic Science Techniques					
1.	Enzyme-Linked				
	Immunosorbent assay			✓	
	(ELISA) and other lab				
	techniques.				
2.	Electroencephalography			✓	
	(EEG)				
3.	Biomechanical Gait Analysis		✓		
4.	Electro-diagnostic Studies		✓		
	(NCS/EMG)				
5.	Transcranial Magnetic		√		
	Stimulation (TMS)				



Clinical Skill				
6.	Physical Therapy Skills			
	(Neuro-muscular Physical			✓
	Therapy)			
7.	Dry Needling, Taping,			
	Manual therapy			✓
Bio-Statistical & Research Skills				
8.	Bio-Statistics			√
9.	SPSS			✓
10.	Python		✓	
11.	R-Statistical tool		✓	
Miscellaneous				
12.	Teaching (Biomedical			✓
	education)			
13.	Physiology & Exercise			
	physiology			✓

Experience:

November.2019 to date	Senior research fellow, New Zealand College of Chiropractic (NZCC), New Zealand.
Sept.2018 to date	Associate Professor, Faculty of rehabilitation & Allied health sciences, Riphah International University, Rawalpindi, Pakistan.
Sept.2018 to date	Associate Dean PG Programs & Research, Faculty of rehabilitation & Allied health sciences, Riphah International University, Rawalpindi, Pakistan.
Sept.2015 to date	Assistant Dean RARE/ORIC, Riphah College of Rehabilitation Sciences, Riphah International University, Rawalpindi, Pakistan.
April.2014 to August 2018.	Assistant Professor, Riphah College of Rehabilitation Sciences, Riphah International University, Rawalpindi, Pakistan.
August.2016 to December.2016	Research Fellowship Brody School of Medicine, East Carolina University, USA.
July.2017 to August 2018	In-Charge PG Research, Riphah College of Rehabilitation Sciences, Riphah International University, Rawalpindi, Pakistan.
October 2012 to March 2014	Senior Lecturer, Riphah College of Rehabilitation Sciences, Riphah International University, Pakistan.

March 2011 to September 2011	Lecturer, Riphah College of Rehabilitation Sciences, Riphah International University, Pakistan.
October 2008 to February 2011	Clinical demonstrator, National Institute of Rehabilitation and Medicine (NIRM), Islamabad, Pakistan.

Education:

September. 2014 to March 2019	PhD (Applied Biosciences), Atta ur Rehman School of Applied Biosciences, National University of science and technology (NUST), Islamabad, Pakistan.
November 2016.	American Board of Physical Therapy, New York Board of Physical Therapy, USA.
February 2017 to August 2017.	Diploma in medical education, Riphah International University (RIU), Islamabad, Pakistan
April. 2012 to July 2014.	MS-Physiology, Islamic International medical college Trust, Riphah International University (RIU), Islamabad, Pakistan. (2014).
February 2010 to February 2012.	Post-Doctor of Physical Therapy, (PPDPT/MS), Riphah College of rehabilitation sciences, Riphah International University (RIU), Islamabad, Pakistan.
August. 2012 to August 2013.	Post-Graduation Diploma in Teaching Methodology, (PGD), Riphah International University (RIU), Islamabad, Pakistan.
January. 2004 to October 2008.	BSc Physical Therapy (BSPT), College of Physical Therapy, King Edward Medical University, Lahore. Pakistan (KEMU). (2008).

Teaching statement:

Dr Imran' also did a diploma in medical education and also have an interest in medical education research. He is involved in both under and post-graduate levels teaching. He has expertise in course development, assessment techniques like OSCE, OSPE, and MCQs, etc

Undergraduate Level

2008- present **Developed and taught** physiology, exercise physiology, and other subjects related to physical rehabilitation i.e. Therapeutics, Musculoskeletal, cardiopulmonary physical therapy and orthotics and prosthesis. Since 2011 student feedback was never less than 4.8/5.

Post-graduate Level

2013- Present **Developed and taught** neurophysiology, sports exercise physiology, exercise physiology and Biostatistics for cardiovascular conditions and Sports medicine. Since 2013 student feedback was never less than 4.7/5.

Post-graduate Research supervision

Running projects with PhD and MS students are:

- 1. Effects of positive pressure on fall of risk in older adults.
- 2. Exergame Balance Training for Pre Frontal Brain Activity and Executive Functioning in Patients with Mild Cognitive Impairment.
- 3. Evaluation of potentially modifiable biological, psychological, social and behavioural factors, along with their possible interactions in low back pain in different age groups.
- 4. Knee joint position sense testing with digital inclinometer mobile application in healthy adults: Test development and reliability study.
- 5. Comparison between immediate personal and peer performance feedback on fall risk in older adults.
- 6. Cross-cultural Translation of Oswestry Disability Index (ODI) Into Local Languages of Pakistan.
- 7. Translation of the Cerebral Palsy Quality of Life Questionnaire in Local Languages of Pakistan.
- 8. Translation of the Dizziness handicap inventory scale in Local Languages of Pakistan.
- 9. Translation of Neck Disability Index into Local Pakistani Languages of Pakistan.
- 10. Translation of Stroke Specific Quality of Life Questionnaire into Local Languages of Pakistan.
- 11. Translation of Quebec Back Pain Disability Scale into Local Languages of Pakistan.

Clinical Experience:

- ➤ Railway general hospital, Islamic International Medical College, Rawalpindi, Pakistan, 12th March 2011 to Now. (Neuro-Rehabilitation & sports rehabilitation).
- ➤ Physical Medicine and Rehabilitation Center, Brody School of Medicine, USA, 1st September to 29th November 2016.
- ➤ National Institute of rehabilitation and medicine (NIRM), Islamabad, Pakistan, 09th October 2008 -23rd February 2011.((Neuro & musculoskeletal rehabilitation)

- ➤ **Doctors Hospital**, Johor Town Lahore, 1st April to 8th October 2008. (Cardio-pulmonary rehabilitation).
- Clinical skills:
 - Manual therapy
 - Dry needling
 - Taping
 - Sports injury assessment and management
 - Neurological rehabilitation

Extra Responsibilities in RCRS:

- i. Editor, Journal of Riphah College of Rehabilitation Sciences (JRCRS). (2018-2020)
- ii. Associate Dean Post Graduate program & Research RCRS, Islamabad.
- iii. Assistant Dean Riphah Academy of Research and Education (RARE).
- iv. Incharge of research ethical review board of RCRS, Islamabad.
- v. Incharge MS Sports physical therapy, RCR S, Islamabad.
- vi. Incharge of Curriculum Development committee of RCRS, Islamabad.
- vii. Secretary conference, 2nd International conference of rehabilitation sciences, Islamabad, 2017.

Honors/Fellowships/Awards/Contributions

- 1. Participation in "6th International Conference of Medical Education (ICME)", Islamabad, Pakistan. (March 11- March 14, 2019)
- 2. Participation in "5th International Conference of Medical Education (ICME) & OTTAWA Conference", Abu Dabi, UAE. (March 11- March 14, 2018)
- 3. Board-certified: American Board of Physical Therapy. 2016.
- 4. Research Fellowship **Brody School of Medicine**, **East Carolina University**, **USA** (1 September 29 November 2016).
- 5. Fellowship to participate in "Fourth IBRO Associate School" Basic Approaches in Neurological Diseases, Tehran, Iran" (October 17- October 28, 2014).
- Fellowship to participate in IBRO-APRC Associate School of Neuroscience "From Basic Neuroscience to Advanced Applications". Atta-ur-Rahman School of Applied Biosciences, National University of Sciences and Technology, Islamabad, Pakistan (September 30 -October 4, 2013).
- 7. Participation in "4rth International Conference of Medical Education (ICME)", Istanbul, Turkey. (October 14- October 18, 2015)

- 8. Associate Editor of Journal of Riphah College of Rehabilitation Sciences JRCRS.
- 9. **Member board of studies** of Government College University, Faisalabad. Pakistan.
- 10. Member board of studies of Shifa Tamer-e-Millat University, Islamabad, Pakistan.

Published articles: (Impact factor 46.824):

2021

- 1. Holt K, Niazi IK, **Amjad I**, Kumari N, Rashid U, Duehr J, Navid MS, Shafique M, Haavik H. The Effects of 4 Weeks of Chiropractic Spinal Adjustments on Motor Function in People with Stroke: A Randomized Controlled Trial. Brain Sciences. 2021 Jun;11(6):676. **Impact factor 3.2**
- 2. Haavik H, Niazi IK, Kumari N, **Amjad I,** Duehr J, Holt K. The Potential Mechanisms of High-Velocity, Low-Amplitude, Controlled Vertebral Thrusts on Neuroimmune Function: A Narrative Review. Medicina. 2021 Jun;57(6):536. **Impact factor 1.2**

2020

- 3. Jochumsen M, Niazi IK, Zia ur Rehman M, **Amjad I**, Shafique M, Gilani SO, Waris A. Decoding Attempted Hand Movements in Stroke Patients Using Surface Electromyography. Sensors. 2020 Jan;20(23):6763. **Impact factor 3.2**
- 4. Humera Ambreen, Hina Tariq, **Amjad I**, Effects of bilateral arm training on upper extremity function in right and left hemispheric stroke. Accepted. Pakistan Journal of Medical Sciences. **Impact factor 0.6**
- 5. **Amjad I,** Niazi IK, Toor HG, Nedergaard RB, Shafique M, Holt K, Haavik H, Ahmed T. Acute Effects of Aerobic Exercise on Somatosensory-Evoked Potentials in Patients with Mild Cognitive Impairment. Brain Sciences. 2020 Oct;10(10):663. **Impact factor 3.3**
- 6. Steven Waterstone, T.; Niazi, I.K.; Navid, M.S.; **Amjad, I**.; Shafique, M.; Holt, K.; Haavik, H.; Samani, A. Functional Connectivity Analysis on Resting-State Electroencephalography Signals Following Chiropractic Spinal Manipulation in Stroke Patients. *Brain Sci.* 2020, *10*, 644. **Impact factor 3.3**
- 7. Navid MS, Niazi IK, Lelic D, Nedergaard RB, Holt K, **Amjad I**, Drewes AM, Haavik H. Investigating the Effects of Chiropractic Spinal Manipulation on EEG in Stroke Patients. Brain Sciences. 2020 May;10(5):253. **Impact factor 3.3**
- 8. Khan ML, Ghous M, **Amjad I**, Nouman M, Yaqoob I. Level of satisfaction regarding physical therapy services in district Poonch, Azad Jammu Kashmir. JPMA. The Journal of the Pakistan Medical Association. 2020 Mar 1;70(3):452-6. **Impact factor 0.7**
- 9. Ramzan T, Tariq MI, Razzaq M, Shafiq M, Khalid Z, **Amjad I**, Obaid S. Effect of Inspiratory and Expiratory Muscle Training to reduce Hypertension among Stage I and II Hypertensive Patients. Rawal Medical Journal. 2020;45(2):261-4.

- 10. Dong J, Geng B, Niazi IK, **Amjad I**, Dosen S, Jensen W, Kamavuako EN. The Variability of Psychophysical Parameters following Surface and Subdermal Stimulation: A Multiday Study in Amputees. IEEE Transactions on Neural Systems and Rehabilitation Engineering. 2019 Nov 29. **Impact factor 3.9**
- 11. Shahid J, Khan S, Marryam M, **Amjad I.** Frequency of mirror movements and comparison of hand function in spastic cerebral palsy children with and without mirror movements. JPMA. The Journal of the Pakistan Medical Association. 2019 Oct 1;69(10):1459. **Impact factor 0.64**
- 12. Khalid Z, Farheen H, Tariq MI, **Amjad I.** Effectiveness of resistance interval training versus aerobic interval training on peak oxygen uptake in patients with myocardial infarction. JPMA. The Journal of the Pakistan Medical Association. 2019 Aug 1;69(8):1194-8. **Impact factor 0.64**
- 13. Holt K, Niazi IK, Nedergaard RW, Duehr J, **Amjad I**, Shafique M, Anwar MN, Ndetan H, Turker KS, Haavik H. The effects of a single session of chiropractic care on strength, cortical drive, and spinal excitability in stroke patients. Scientific reports. 2019 Feb 25;9(1):2673. **Impact factor 4.6**
- 14. **Amjad I**, Toor H, Niazi IK, Afzal H, Jochumsen M, Shafique M, Allen K, Haavik H, Ahmed T. Therapeutic effects of aerobic exercise on EEG parameters and higher cognitive functions in mild cognitive impairment patients. International Journal of Neuroscience. 2019 Jun 3;129(6):551-62. **Impact factor 1.9**
- 15. **Amjad I,** Toor H, Niazi IK, Pervaiz S, Jochumsen M, Shafique M, Haavik H, Ahmed T. Xbox 360 Kinect Cognitive Games Improve Slowness, Complexity of EEG, and Cognitive Functions in Subjects with Mild Cognitive Impairment: A Randomized Control Trial. Games for health journal. 2019 Apr 1;8(2):144-52. **Impact factor 2.1**
- 16. Farheen H, Khalid Z, Tariq MI, Sadiq T, Amjad I, Ramzan T. Combined Effect of Aerobic and Resistance Interval Training on Ejection Fraction in Myocardial Infarction. Journal of the College of Physicians and Surgeons Pakistan. 2019 Mar 1;29(3):290-2. Impact factor 0.554
- 17. Waseem M, Tariq MI, Yaqoob N, Murad S, **Amjad I.** Effect of lower cycle ergometer on functional capacity of patients with dilated cardiomyopathy. Rawal Medical Journal. 2019;44(3):465-7.
- 18. Khushnood K, Sultan N, Mehmood R, Qureshi S, Tariq H, **Amjad I.** Does Wii Fit balance training improve balance and reduce fall risk in diabetic patients as compared to balance training exercises? A randomized control trial. Rawal Medical Journal. 2019 Jan 1:44(1):44-8.
- 19. Safdar N, Marryam M, Sheraz S, Malik AN, **Amjad I.** Effect of supervised exercise on sleep deprivation and quality of life in patients with depression. Rawal Medical Journal. 2019;44(1):113-6.

- 20. Waseem M, Yaqoob N, Tariq MI, Raza MQ, **Amjad I.** Effects of Lower Limb Cycle Training on Echocardiographic Parameters of Left Ventricle in Dilated Cardiomyopathy Patients. Journal of the College of Physicians and Surgeons--Pakistan: JCPSP. 2018 May;28(5):370-3.Impact factor 0.554
- 21. Afridi A, Malik AN, Ali S, Amjad I. Effect of balance training in older adults using Wii fit plus. JPMA. The Journal of the Pakistan Medical Association. 2018 Mar;68(3):480-3. Impact factor 0.616
- 22. Malik AN, Amjad I. Effect of circuit gait training vs traditional gait training on mobility performance in stroke. JPMA. The Journal of the Pakistan Medical Association. 2018 Mar 1;68(3):455-8. Impact factor 0.616
- 23. Khan K, Ghous M, Malik AN, **Amjad I**, Tariq I. Effects of turning and cognitive training in fall prevention with dual task training in elderly with balance impairment. Rawal Medical Journal. 2018 Jan 1;43(1):124-8.
- 24. Shakil-ur-Rehman, S., Karimi, H., Gillani, S. A., Amjad, I., Ahmad, S., & Yaseen, A. (2017). Response to a Supervised Structured Aerobic Exercise Training Program in Patients with Type 2 Diabetes Mellitus—Does Gender Make a Difference? A Randomized Controlled Clinical Trial. Journal of the National Medical Association. Impact factor 0.182

2017

- 25. **Amjad I**, Gul Zaman, Descriptive Analysis Of Persons With Traumatic Spinal Cord Injury In Pakistan, World Confederation for Physical Therapy, 2017. **Impact factor 1.90**.
- 26. Tariq MI, Khan AA, Khalid Z, Farheen H, Siddiqi FA, **Amjad I**. Effect of Early≤ 3 Mets (Metabolic Equivalent of Tasks) of Physical Activity on Patient's Outcome after Cardiac Surgery. Journal of the College of Physicians and Surgeons--Pakistan: JCPSP. 2017 Aug 1;27(8):490. **Impact factor 0.554**
- 27. Ullah MA, Shafi H, Khan GA, Malik AN, **Amjad I**. The effects of gait training with body weight support (BWS) with no body weight support (no-BWS) in stroke patients. JPMA The Journal of the Pakistan Medical Association. 2017;67(6):784. **Impact factor 0.488**.
- 28. Azim ME, Siddiqi FA, Mirza SK, Pervaiz S, **Amjad I**, Malik AN. Effects Of Exergaming On Fall Risk Reduction And Mobility Improvement In Elderly: A Pre-Post Quasi Interventional Study. International Journal of Rehabilitation Sciences (IJRS). 2017 Aug 25;6(01).
- 29. Ghous M, Malik AN, **Amjad MI**, Kanwal M. Effects of activity repetition training with Salat (prayer) versus task oriented training on functional outcomes of stroke. JPMA The Journal of the Pakistan Medical Association. 2017;67(6):1094. Impact factor 0.488.
- 30. Jan F, Naeem A, Malik AN, **Amjad I**, Malik T. Comparison of low level laser therapy and interferential current on post stroke shoulder pain. JPMA The Journal of the Pakistan Medical Association. 2017;67(5):788. **Impact factor 0.488.**
- 31. Afzal MF, Arif A, Malik AN, Amjad I. Expectation of patients from physiotherapist.

2016

- 32. Anjum H, **Amjad I**, Malik AN. Effectiveness of Proprioceptive Neuromuscular Facilitation Techniques as Compared to Traditional Strength Training in Gait Training Among Transtibial Amputees. Journal of the College of Physicians and Surgeons Pakistan. 2016 Jun 1;26(6):503-6. **Impact factor 0.554.**
- 33. Zafer H, **Amjad I**, Malik AN, Shaukat E. Effectiveness of constraint induced movement therapy as compared to bimanual therapy in upper motor function outcome in child with hemiplegic cerebral palsy. Pakistan journal of medical sciences. 2016 Jan; 32(1):181. **Impact factor 0.554.**
- 34. Ghazal J, Malik AN, **Amjad I**. Task oriented training improves the balance outcome & reducing fall risk in diabetic population. Pakistan Journal of Medical Sciences. 2016 Jul;32(4):983. **Impact factor 0.554.**
- 35. Khan I, Nawaz I, **Amjad I**. Effect of aerobic exercises on stuttering. Pakistan Journal of Medical Sciences. 2016 Jul; 32(4):1005. **Impact factor 0.554.**
- 36. Razzaq A, Siddiqui FA, **Amjad I.** Smoke and pollens are precipitating factors for asthma exacerbation. Journal of Riphah College of Rehabilitaion Sciences. 2016;4(1):25-9.

2015

- 37. **Amjad I**. Study of Human Biochemical Parameters During and After Ramadan, Journal of Religion and Health, July 2015, **Impact factor 1.02**.
- 38. Umar M, Badshah M, Naeem A, **Amjad I**, Fatima A, Rashid F, et al. Aptitude of clinical decision making in physiotherapists of Pakistan. Physiotherapy. 2015; 101:e1556-e7. **Impact factor 1.90.**
- 39. Anwar S, Malik AN, **Amjad I**. Effectiveness of neuromobilization in patients with cervical radiculopathy. Rawal Medical Journal. 2015 Jan;40(1):34-6.
- 40. Khalid Z, Rai MA, Mobeen B, **Amjad I.** Pes Planus & Genu Valgum; Factors Associated. Professional Medical Journal. 2015 Dec 22;22(10).
- 41. Sheraz S, Siddiqi FA, Zaidi SA, **Amjad I.** Blood gases and oxygen saturation response to active cycle of breathing techniques in COPD patients during phase I of cardiac rehabilitation. Rawal Medical Journal. 2015 Jul;40(3):259-62.

2014

- 42. **Amjad I** Comparison of Kinematic Parameters between Professional and Non Professional Swimmers. Published in Rawal medical journal. (Rawal Med J 2014;39: 385-387
- 43. **Amjad I**. Teaching faculty assessment in teaching methodology, ethics and in Islamic values. Published in journal of international medical college.2014:8: 94-97

2013

- 44. Jahan S, Arshad Z, Zaidi SN, **Amjad I.** Frequency of Different Risk Factors of Autism Spectrum Disease: A Multicentre Comparative Study.
- 45. **Amjad I,** Shakil-ur-Rehman S, Khan A, Danish KF, Awan IB, Khan SG. Comparison of Self-Assessment with Peer and Student Assessment in Evaluating the Overall Performance of the Faculty. Journal of Islamic International Medical College. 2013;8(3):94-7.
- 46. **Amjad I**, Malik AN. Identify Learning style in students of medical discipline. Rawal Medical Journal. 2013 Apr;38(2):184-7.
- 47. Clinical practice pattern in final year Physical Therapy students of Pakistan in 2012. Published in Rawal medical journal. Rawal Med J 2013;38: 298-300
- 48. **Amjad I**. Effectiveness of Motor learning and task related training in treatment of silver Russell syndrome. Published in Rawal medical journal.(Rawal Med J 2013;38: 323-324)
- 49. **Amjad I** .Comparison between long corners and short corners in field hockey. Published in Rawal medical journal. (Rawal Med J 2013;38: 428-431
- 50. **Amjad I**. Efficacy of Spinal Manual Therapy in Non Specific Acute Low Back Pain. Published in Rawal medical journal. (Rawal Med J 2013;38: 358-360
- 51. To determine the prevalence of the flat foot in 6-10 years old school going children. Published in Rawal medical journal. (Rawal Med J 2013;38: 385-387
- 52. **Amjad I** Malik AN To determine learning style of medical students. Published in Rawal medical journal.(Rawal Med J 2013;38:184-187)

2012

53. Umar M, Naeem A, Badshah M, **Amjad I**. Effectiveness of cervical traction combined with core muscle strengthening exercises in cervical radiculopathy: a randomized control trial. J. Public Health Biol. Sci.. 2012;1:115-20.