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## Biographical

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**Name:** Mohammad Sami Al Wardat      **Date of birth:** 24/01/1990  
**Mobile:** +962 776456016      **Place of birth:** Saudi Arabia  
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## Education

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-**Ph.D.**, Neurosciences (Neuro-Rehabilitation), Grade A with honor, 2016-2020, University of Rome "Tor Vergata", Rome-Italy.  
-Research Fellowship Program, 2020, University of Rome "Tor Vergata", Rome-Italy  
-**MSc**, in Physical Activity and Health Promotion, Grade A with honor, 2014-2016, University of Rome "Tor Vergata", Rome-Italy.  
-**BSc**, Physical Therapy, 2012, University of Jordan, Amman- Jordan.

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## Research Interests

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-Neurorehabilitation  
-Movement disorders rehabilitation  
-Motor development disorders rehabilitation  
-Neuropsychological rehabilitation

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## Work Experience

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-**Assistant Professor**, October 2022- present  
Department of Rehabilitation Sciences, Faculty of Applied Medical Sciences, Jordan University of Science and Technology.  
-**Acting Head of Department**, September 2025-present  
Department of Rehabilitation Sciences, Faculty of applied Medical Sciences, Jordan University of Science and Technology.  
-**Dean assistant**, September 2023-September 2025  
Faculty of applied Medical Sciences, Jordan University of Science and Technology.  
-**Assistant Professor**, September 2020- September 2022  
Department of Physiotherapy, Aqaba University of Technology, Aqaba-Jordan.  
-**Research and Teaching Assistant**, 2016-2020  
Department of System Medicine, Division of Movement disorders University of Rome "Tor Vergata", Rome-Italy.  
-**Physical Therapist**, September 2012 - August 2014  
Handicap International Organization, Jordan

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## Academic Duties

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A) Teaching and conducting examinations.  
B) Carrying out innovative research and studies.  
C) Supervising graduate theses and scientific or social research, guiding students academically and ethically, and monitoring their activities and reports.  
D) Providing academic advising.  
E) Participating in university councils and committees, as well as in those in which the university is represented.  
F) Undertaking any activity that promotes the university and contributes to its advancement.  
G) Dedicating oneself to academic responsibilities within the university, striving to enhance its scientific mission, and maintaining the level befitting its status in research, teaching, guidance, and administration.  
H) Serving the community and contributing to its development.

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### International collaborations

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-Co-Author

**Young Member Research Task Force**, Task Force on Postural Abnormalities in Parkinsonism, International Parkinson and Movement Disorder Society (January 2021- December 2023).

-Co-Author

**Steering Committee Member**, International Parkinson and Movement Disorder Society- Health Professionals Special Interest Group (December 2021- December 2023).

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### Peer Reviewing

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• Frontiers in Rehabilitation Science	Reviewer
• Frontiers in Pain Research	Reviewer
• Frontiers Neurology	Reviewer
• Clinical Rehabilitation	Reviewer
• Journal of Bodywork and Movement Therapies	Reviewer
• European Journal of Neurology	Reviewer
• European Journal of Physical and Rehabilitation Medicine	Reviewer
• Journal of Neural Transmission	Reviewer
• Journal of Parkinsonism and Related Disorders	Reviewer

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### Teaching courses and topics

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#### -Undergraduate

- Human Anatomy (Theoretical and Practical)
- Pathology
- Health Service management
- Physical Activity and Health Promotion
- Musculoskeletal Anatomy (Theoretical and Practical)
- Musculoskeletal assessment (Theoretical and Practical)
- Neuroscience I (Theoretical and Practical)
- Disease of Muscle and Bone
- Physical Therapy in Neurology I (Theoretical and Practical)
- Physical Therapy in Neurology II (Theoretical and Practical)
- Clinical Practice in Neurology (2)
- Prosthetics and Orthotics (Theoretical and Practical)
- Research Project

#### -Graduate Courses:

- Clinical Training in Physical Therapy (1)
- Independent Study in Physical Therapy
- Advanced Clinical Neuroscience
- Advanced Management in Medical Sciences
- Special Topics in Physical Therapy

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### Committees/Boards

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- Member of re-accreditation of the World Confederation for Physical Therapy's (WCPT) at Rehabilitation Sciences department - Jordan University of Science & Technology.
- Member of scientific research committee at rehabilitation sciences department council – Jordan University of Science & Technology.
- Chair and member of the Scientific committees at Applied Medical Sciences Faculty - Jordan University of Science & Technology.
- Member of the media committees at Applied Medical Sciences Faculty - Jordan University of Science & Technology.
- Member of accreditation and quality assurance committee at Applied Medical Sciences Faculty, Jordan University of Science & Technology.
- Member of Student Affairs Committee at applied medical Sciences faculty - Jordan University of Science & Technology.

- Chair and member of the committee for Monitoring and Attracting Arab and Foreign Students at applied medical Sciences faculty - Jordan University of Science & Technology.
- Academic communication officer between Jordan University of Science & Technology and Bahrain Cultural Attaché at Jordan.

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#### **Licensure and Membership**

- Physical therapy licensure, Ministry of Health, Jordan (2012-Present).
- International Society of Physical and Rehabilitation Medicine (ISPRM) (2016- Present).
- World Federation for Neurorehabilitation (WFNR) (2022- Present).
- International Parkinson and Movement Disorder Society (MDS) (2016- Present).
- American Psychological Association (APA) (2024-Present)

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#### **Physical Therapy Training Courses**

1. MCKENZIE concept, postgraduate program (Mechanical Diagnosis and Therapy) Part A, B and C. MCKENZIE institute international, (2012-2013) Amman, Jordan.
2. Mobilizations with movements NAGS, SNAGS etc, postgraduate education in manual therapy Part A, B and C. MULLIGAN institute, (2012-2013), Amman, Jordan.

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#### **Professional Training Courses**

- Leadership in The Higher Education Program, Dele Carnegie Training Center, February 25<sup>th</sup>, 2021.
- Training of Trainers: The Methods of interactive learning, The Royal Health Awareness Society, September 12-14, 2021.
- Applying Quality Matters Rubric, Academic Development and Quality Assurance, Jordan University of Science and Technology, 2-3/11/2022.

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#### **Masters Thesis committee**

- **External Examiner and committee member**
  1. Anoud Izzat Alawneh (2021). To what extent the nonpharmacological interventions are effective in the pain management of patients with multiple sclerosis? a systematic review and meta-analysis study. Department of Rehabilitation Sciences, Jordan University of Science and Technology.
  2. Hadeel Mohammad Badwan (2022). The SARC-F questionnaire for sarcopenia screening: Arabic translation, validation and associated factors in older adults. Physical Therapy department, Faculty of Rehabilitation, University of Jordan.
  3. Asma' Alkasassbeh (2022). Dizziness and functional mobility among individuals with long covid-19. Physical Therapy department, Faculty of Rehabilitation, University of Jordan.
  4. Madlien Al-Omari (2023). The Effect of Virtual reality (VR) on balance impermeant in People with Persistent Postural-Perceptual Dizziness (PPPD): A Randomized Controlled Trial. Physical Therapy department, Faculty of Rehabilitation, University of Jordan.
- **Master Thesis Supervision (Main Advisor And Committee Chair)**
  1. Husam Magableh (2023). Quality of life and its correlates among parents of children with cerebral palsy: an observational cross-sectional study. Department of Rehabilitation sciences, Faculty of applied medical sciences, Jordan University of Science & Technology.
  2. Enad Jawasreh (2024). The effectiveness of home-based exercise on motor function and quality of life in children with cerebral palsy. Department of Rehabilitation sciences, Faculty of applied medical sciences, Jordan University of Science & Technology.
  3. Tasneem Al Rojoub (2024). The effect of Psychological Interventions on Neck Pain and Disability in Patients with Whiplash. A systematic review and meta-analysis. Department of Rehabilitation sciences, Faculty of applied medical sciences, Jordan University of Science & Technology.
  4. Abidal Aziz Almomani (2024). Knowledge, Attitudes and Barriers of Telerehabilitation Among Healthcare Providers in Jordan an observational cross-sectional study. Department of Rehabilitation sciences, Faculty of applied medical sciences, Jordan University of Science & Technology. Department of Rehabilitation sciences, Faculty of applied medical sciences, Jordan University of Science & Technology.

5. Tasneem Al-Rjoub (2024). The Effect of Psychological Interventions on Neck Disability and Pain for Patients With Whiplash. Systematic Review and Meta-Analysis. Department of Rehabilitation sciences, Faculty of applied medical sciences, Jordan University of Science & Technology.
6. Dina Boshareh (2025), The prevalence of stress and its association with balance and gait speed in people with MS in Jordan. Department of Rehabilitation sciences, Faculty of applied medical sciences, Jordan University of Science & Technology.
7. Nour Abo Al-Thahab (2025). Prevalence of Sleep Disorders and Their Associations with Pain and Mental Health among the Jordanian Geriatric Population. Department of Rehabilitation sciences, Faculty of applied medical sciences, Jordan University of Science & Technology.
- **Master Thesis Supervision (Co-Advisor and committee member)**
1. Esraa Saleh. (2023). The effectiveness of home-based therapeutic exercises on adults with fibromyalgia: a systematic review and meta-analysis. Department of Rehabilitation sciences, Faculty of applied medical sciences, Jordan University of Science & Technology.
2. Mahdi Al-humaidi (2024). The influence of Physical activity on the Paretic Upper limb functional and motor recovery post stroke: a systematic review and meta-analysis. Department of Rehabilitation sciences, Faculty of applied medical sciences, Jordan University of Science & Technology.

## Publications

### A) Original Articles:

1. Wijeratne T, Oh J, Kim S, Yim Y, Kim MS, Shin JI, Oh YS, Jung R, Kim YS, Smith L, Aalruz H. Global, regional, and national burden of headache disorders, 1990–2021, with forecasts to 2050: A Global Burden of Disease study 2021. *Cell Reports Medicine*. 2025 Sep 18.
2. Topor-Madry R, Bilik A, Król ZJ, Miłkowski M, Maciejczyk A, Malinowska K, Micek A, Ahmed A, Akkaif MA, Ali A, Ali W. The burden of diseases, injuries, and risk factors by voivodship in Poland, 1990–2023: a systematic analysis for the Global Burden of Disease Study 2023. *The Lancet Regional Health–Europe*. 2025 Sep 3.
3. Al-Wardat M, Magableh H, Almhdawi KA, Yabroudi M, Etoom M, Tariah HA, Abdullahi A, Almasri N. Parental quality of life and its predictors in Jordanian families with children with cerebral palsy. *BMJ Paediatrics Open*. 2025 Aug 26;9(1):e003462.
4. Hadoush, Hikmat et al. Effectiveness of Non-pharmacological interventions on pain and fatigue management in cancer survivors: A systematic review and meta-analysis study *Journal of Bodywork and Movement Therapies*, (2025) Volume 44, 251 - 260
5. Haeuser, Emily, et al. "Global, regional, and national trends in routine childhood vaccination coverage from 1980 to 2023 with forecasts to 2030: a systematic analysis for the Global Burden of Disease Study 2023." *The Lancet* (2025).
6. Alrabbaie, Hassan, et al. "The prevalence of metabolic syndrome in chronic obstructive pulmonary disease: A systematic review and meta-analysis." *Chronic respiratory disease* 22 (2025): 14799731251346194.
7. Rautalin, Ilari, et al. "Global, Regional, and National Burden of Nontraumatic Subarachnoid Hemorrhage: The Global Burden of Disease Study 2021." *JAMA neurology* (2025).
8. Hadoush, Hikmat, et al. "Non-Invasive Brain Stimulation Effectiveness on Gait, Balance, and Motor Functions in Children with Cerebral Palsy: A Systematic Review and Meta-Analysis." *NeuroRehabilitation* (2024): 10538135251336924.
9. Oh, Jiyeon, et al. "Global, regional, and national burden of asthma and atopic dermatitis, 1990–2021, and projections to 2050: a systematic analysis of the Global Burden of Disease Study 2021." *The lancet respiratory medicine* 13.5 (2025): 425-446.
10. Nomura, Shuhei, et al. "Three decades of population health changes in Japan, 1990–2021: a subnational analysis for the Global Burden of Disease Study 2021." *The Lancet Public Health* 10.4 (2025): e321-e332.
11. Ng, Marie, et al. "Global, regional, and national prevalence of adult overweight and obesity, 1990–2021, with forecasts to 2050: a forecasting study for the Global Burden of Disease Study 2021." *The Lancet* 405.10481 (2025): 813-838.

12. Kerr, Jessica A., et al. "Global, regional, and national prevalence of child and adolescent overweight and obesity, 1990–2021, with forecasts to 2050: a forecasting study for the Global Burden of Disease Study 2021." *The Lancet* 405.10481 (2025): 785-812.
13. Feigin, Valery L., et al. "Global, regional, and national burden of epilepsy, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021." *The Lancet Public Health* 10.3 (2025): e203-e227.
14. Steel, Nicholas, et al. "Changing life expectancy in European countries 1990–2021: a subanalysis of causes and risk factors from the Global Burden of Disease Study 2021." *The Lancet Public Health* 10.3 (2025): e172-e188.
15. Zhang, Chen, et al. "Burden of neurological disorders in China and its provinces, 1990–2021: Findings from the global burden of disease study 2021." *Med* (2025).
16. GBD 2021 US Burden of Disease Collaborators, 2024. The burden of diseases, injuries, and risk factors by state in the USA, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet*, 404(10469), pp.2314-2340.
17. Mokdad, A.H., Bisignano, C., Hsu, J.M., Bryazka, D., Cao, S., Bhattacharjee, N.V., Dalton, B.E., Lindstedt, P.A., Smith, A.E., Ababneh, H.S. and Abbasgholizadeh, R., 2024. Burden of disease scenarios by state in the USA, 2022–50: a forecasting analysis for the Global Burden of Disease Study 2021. *The Lancet*, 404(10469), pp.2341-2370.
18. Ng, M., Dai, X., Cogen, R.M., Abdelmasseh, M., Abdollahi, A., Abdullahi, A., Aboagye, R.G., Abukhadajah, H.J., Adeyoluwa, T.E., Afolabi, A.A. and Ahmad, D., 2024. National-level and state-level prevalence of overweight and obesity among children, adolescents, and adults in the USA, 1990–2021, and forecasts up to 2050. *The Lancet*, 404(10469), pp.2278-2298.
19. Piscalkiene, Viktorija, **Mohammad Al-Wardat**, Daiva Bartusiene, Vaidas Jotautis, Evelina Lamsodiene, Irma Spudyte, Alina Liepinaitiene, and Lijana Navickiene. "Exploring the Neurodiversity of Lithuanian College Students and Its link to Learning Difficulties and Supporting Measures." *BRAIN. Broad Research in Artificial Intelligence and Neuroscience* 15, no. 4 (2024): 338-353.
20. Wshah, Adnan, Mohammad Madi, Saad Al-Nassan, **Mohammad Al-Wardat**, Ana Oliveira, and Dina Brooks. "Cross-cultural adaptation and validation of the sedentary behaviour questionnaire among Arabic speaking healthy adults." *International Journal of Health Promotion and Education* (2024): 1-14.
21. Bryazka D, Reitsma MB, Abate YH, Abd Al Magied AH, Abdelkader A, Abdollahi A, Abdoun M, Abdulkader RS, Zuñiga RA, Abhilash ES, Abiodun OO. Forecasting the effects of smoking prevalence scenarios on years of life lost and life expectancy from 2022 to 2050: a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet Public Health*. 2024 Oct 1;9(10):e729-44.
22. Feigin VL, Abate MD, Abate YH, Abd ElHafeez S, Abd-Allah F, Abdelalim A, Abdelkader A, Abdelmasseh M, Abd-Elsalam S, Abdi P, Abdollahi A. Global, regional, and national burden of stroke and its risk factors, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet Neurology*. 2024 Oct 1;23(10):973-1003.
23. Vollset SE, Ababneh HS, Abate YH, Abbafati C, Abbasgholizadeh R, Abbasian M, Abbastabar H, Abd Al Magied AH, Abd ElHafeez S, Abdelkader A, Abdelmasseh M. Burden of disease scenarios for 204 countries and territories, 2022–2050: a forecasting analysis for the Global Burden of Disease Study 2021. *The Lancet*. 2024 May 18;403(10440):2204-56.
24. Brauer M, Roth GA, Aravkin AY, Zheng P, Abate KH, Abate YH, Abbafati C, Abbasgholizadeh R, Abbasi MA, Abbasian M, Abbasifard M. Global burden and strength of evidence for 88 risk factors in 204 countries and 811 subnational locations, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet*. 2024 May 18;403(10440):2162-203.
25. Ferrari AJ, Santomauro DF, Aali A, Abate YH, Abbafati C, Abbastabar H, Abd ElHafeez S, Abdelmasseh M, Abd-Elsalam S, Abdollahi A, Abdullahi A. Global incidence, prevalence, years lived with disability (YLDs), disability-adjusted life-years (DALYs), and healthy life expectancy (HALE) for 371 diseases and injuries in 204 countries and territories and 811 subnational locations, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet*. 2024 Apr 17.
26. **Al-Wardat M**, Salimei C, Alrabbaie H, Etoom M, Khashroom M, Clarke C, Almhdawi KA, Best T. Exploring the Links between Physical Activity, Emotional Regulation, and Mental Well-Being in Jordanian University Students. *Journal of Clinical Medicine*. 2024; 13(6):1533.

27. **Al-Wardat M**, Etoom M, Almahdawi K, Hwamdeh Z, Khader Y. 2024. Prevalence of Attention-Deficit Hyperactivity Disorder in Children, Adolescents and Adults in Middle east and North Africa Region: A Systematic Review And Meta-Analysis. *BMJ open*.
28. Lena F, Cesarano, D'Onghia A, Torre M, Santilli M, Modugno N. and **Al-Wardat M**. (2024). A novel manual therapy approach for managing acute interscapular pain following median sternotomy for open cardiac surgery: A clinical comparative analysis. *Journal of Bodywork and Movement Therapies*.
29. Salih E, Yabroudi, M.A., **Al-Wardat, M.**, Nawasreh, Z.H., Almahdawi, K. and Etoom, M., 2023. The effectiveness of home-based therapeutic exercises on adults with fibromyalgia: a systematic review and meta-analysis. *International Journal of Rehabilitation Research*, 46(4), pp.359-368.
30. **Al-Wardat, M.**, Grillo, P., Schirinzi, T., Pavese, C., Salimei, C., Pisani, A. and Natoli, S., 2023. Constipation and pain in Parkinson's disease: a clinical analysis. *Journal of Neural Transmission*, pp.1-8.
31. Artusi, C.A., Geroi, C., Nonnekes, J., Aquino, C., Garg, D., Dale, M.L., Schlosser, D., Lai, Y., **Al-Wardat, M.**, Salari, M. and Wolke, R., 2023. Predictors and Pathophysiology of Axial Postural Abnormalities in Parkinsonism: A Scoping Review. *Movement Disorders Clinical Practice*.
32. **Al-Wardat, M.**, Etoom, M., Lena, F., Pellicciari, L., D'Amone, F., Kossi, O., Brindisino, F. and Abdullahi, A., 2023, August. Exploring Communication Practices in Italian Physiotherapy: Knowledge and Use of Effective Communication Strategies—A National Descriptive Study. In *Healthcare* (Vol. 11, No. 16, p. 2247).
33. Geroi, C., Artusi C.A., Nonnekes J., Aquino C., Garg D., Dale M.L., Schlosser D., Lai Y., **Al-Wardat M.**, Salari M. and Wolke, R., et al. 2023. Axial Postural Abnormalities in Parkinsonism: Gaps in Predictors, Pathophysiology, and Management. *Movement Disorders*.
34. Gualtieri P, **Al-Wardat M**, De Santis GL, Alwardat N, Della Morte D, Clarke C, Best T, Salimei C, Bigioni G, Cianci R, De Lorenzo A. The role of MTHFR polymorphisms in the risk of lipedema. *Eur Rev Med Pharmacol Sci*. 2023;27(4):1625-32.
35. **Mohammad Al-Wardat**, Christian Geroi, Tommaso Schirinzi, Mohammad Etoom, Michele Tinazzi, Antonio Pisani, and Silvia Natoli. Axial Postural Abnormalities and Pain in Parkinson's disease. *Journal of Neural Transmission*. 2022. doi: 10.1007/s00702-022-02576-4
36. **Al-Wardat M**, Schirinzi T, Hadoush H, Kassab M, Yabroudi MA, Opara J, Nawrat-Szoltysik A, Khalil H, Etoom M. Home-Based Exercise to Improve Motor Functions, Cognitive Functions, and Quality of Life in People with Huntington's Disease: A Systematic Review and Meta-Analysis. *Int J Environ Res Public Health*. 2022 Nov 12;19(22):14915.
37. **Al-Wardat M**, Clarke C, Alwardat N, Kassab M, Salimei C, Gualtieri P, Marchetti M, Best T, Di Renzo L. The Difficulties in Emotional Regulation among a Cohort of Females with Lipedema. *Int J Environ Res Public Health*. 2022 Oct 21;19(20):13679.
38. Mohammad Etoom, **Mohammad Alwardat**, Alia Alghwiri, Francesco Lena and Andrea Romigi. Effects of Transcranial Direct Current Stimulation on Sleep in Athletes: A Protocol of a Randomized Controlled Trial. *Journal of Clinical Medicine*, 2022, 11, 5883.
39. Hadoush Hikmat, Anoud Alawneh, Manal Kassab, **Mohammad Al-Wardat**, and Muhammed Al-Jarrah. Effectiveness of non-pharmacological rehabilitation interventions in pain management in patients with multiple sclerosis: Systematic review and meta analysis. *NeuroRehabilitation*: 1-19.
40. Suppa Antonio, Costantini Giovanni, Asci Francesco, Di Leo Pietro, **Al-Wardat Mohammad**, Di Lazzaro Giulia, Scalise Simona, Pisani Antonio and Saggio Giovanni. (2022) Voice in Parkinson's Disease: A Machine Learning Study. *Front. Neurol*. 13:831428. doi: 10.3389/fneur.2022.831428
41. Di Lazzaro Giulia, Mariachiara Ricci, Giovanni Saggio, Giovanni Costantini, Tommaso Schirinzi, **Mohammad Alwardat**, Luca Pietrosanti et al. Technology-based therapy-response and prognostic biomarkers in a prospective study of a de novo Parkinson's disease cohort. *npj Parkinson's Disease* 7, no. 1 (2021): 1-7.
42. Sancesario, Giulia Maria, Giulia Di Lazzaro, Piergiorgio Grillo, Benedetta Biticchi, Emilia Giannella, **Mohammad Alwardat**, Massimo Pieri et al. "Biofluids profile of  $\alpha$ -Klotho in patients with Parkinson's disease." *Parkinsonism & related disorders* 90 (2021): 62-64.
43. Esposito E, Sinibaldi Salimei P, Salimei C, **Al-Wardat M**. Effect of 12-weeks adapted physical activity on back disability and pain in Brazilian elderly. *Fizjoterapia Polska* 2021; 21(1); 42-46.

44. Carpenedo R, **Al-Wardat M**, Vizzolo L, Germani G, Chinè E, Ridolfo S, Dauri M, Natoli S. Ultrasound-guided pulsed radiofrequency of the saphenous nerve for knee osteoarthritis pain: a pilot randomized trial. *Pain Management*. 2021.
45. **Al-Wardat M**, Alwardat N, De Santis GL, Zomparelli S, Gualtieri P, Bigioni G, Romano L, Di Renzo L. The association between serum vitamin D and mood disorders in a cohort of lipedema patients. *Hormone Molecular Biology and Clinical Investigation*. 2021.
46. Lena F, Etoom M, **Al-Wardat M**, Modugno N. Osteoporotic fracture and conservative management in Parkinson's disease and Pisa syndrome: Case report. *Journal of Bodywork and Movement Therapies*. 2021 Jan 1;25:170-3.
47. Etoom M, **Alwardat M**, Ala'S A, Lena F, Fabbriro R, Modugno N, Centonze D. Therapeutic interventions for Pisa syndrome in idiopathic Parkinson's disease. A Scoping Systematic Review. *Clinical Neurology and Neurosurgery*. 2020 Sep 18;106242.
48. Schirinzi T, Di Lazzaro G, Salimei C, Cerroni R, Liguori C, Scalise S, **Alwardat M**, Mercuri NB, Pierantozzi M, Stefani A, Pisani A. Physical activity changes and correlate effects in patients with Parkinson's disease during COVID-19 lockdown. *Movement Disorders Clinical Practice*. 2020 Jan 1.
49. **Alwardat M**, Pisani A, Etoom M, Carpenedo R, Chinè E, Dauri M, Leonardis F, Natoli S. Is transcranial direct current stimulation (tDCS) effective for chronic low back pain? A systematic review and meta-analysis. *Journal of Neural Transmission*. 2020 Jul 9:1-4.
50. Sancesario GM, Di Lazzaro G, **Alwardat M**, Biticchi B, Basile V, Salimei C, Colona VL, Salimei PS, Bernardini S, Mercuri NB, Pisani A, Schirinzi T. Amyloid- $\beta$ -42/neurogranin ratio as a potential index for cognitive impairment in Parkinson's disease. 2020 *Journal of Alzheimer's Disease*.
51. Ricci M, Di Lazzaro G, Pisani A, Scalise S, **Alwardat M**, Salimei C, Giannini F, Saggio G. Wearable Electronics Assess the Effectiveness of Transcranial Direct Current Stimulation on Balance and Gait in Parkinson's Disease Patients. *Sensors*. 2019, 19(24):5465.
52. Di Lazzaro, Ricci M, **Alwardat M**, Schirinzi T, Scalise S, Giannini F, Mercuri NB, Saggio G, Pisani A. Technology-Based Objective Measures Detect Subclinical Axial Signs in Untreated, de novo Parkinson's Disease. *Journal of Parkinson's disease*. 2019.
53. **Alwardat M**, Schirinzi T, Di Lazzaro G, Franco D, Imbriani P, Sinibaldi Salimei P, Mercuri NB, Pisani A. The influence of postural deformities on neck function and pain in patients with Parkinson's disease. *NeuroRehabilitation*. 2019;44(1):79-84.
54. Alwardat N, Di Renzo L, **Alwardat M**, Romano L, De Santis G, Gualtieri P, Carrano E, Nocerino P, De Lorenzo A. The effect of Lipedema on health-related quality of life and psychological status: a narrative review of the literature. *Eating and Weight Disorders* 2019.
55. Schirinzi T, Martella G, Imbriani P, Di Lazzaro G, Franco D, Colona VL, **Alwardat M**, Sinibaldi Salimei P, Mercuri NB, Pierantozzi M, Pisani A. Dietary Vitamin E as a protective factor for Parkinson's Disease: clinical and experimental evidence. 2019, *Frontiers in Neurology -Movement disorders*.
56. **Alwardat M**, Schirinzi T, Di Lazzaro G, Sancesario GM, Franco D, Imbriani P, Sinibaldi Salimei, Bernardini S, Mercuri NB, Pisani A. Association between physical activity and dementia's risk factors in patients with Parkinson's disease. *Journal of Neural Transmission*. 2019;126(3):319-325
57. **Alwardat M**, Schirinzi T, Di Lazzaro G, Franco D, Sinibaldi Salimei P, Mercuri NB, Pisani A. The effect of Postural Deformities on Back Function and Pain in Patients with Parkinson's disease. *NeuroRehabilitation* 2019;44(3):419-424.
58. **Alwardat M**, Etoom M. Effectiveness of robot-assisted gait training on freezing of gait in people with Parkinson's disease: Evidence from a literature review. *Journal of Exercise Rehabilitation*. 2019;15(2):187-192.
59. **Alwardat M**, Etoom M, Al Daja S, Schirinzi T, Di Lazzaro G, Sinibaldi Salimei P, Mercuri NB, Pisani A. Effectiveness of robot-assisted gait training on motor impairments in people with Parkinson's disease: a systematic review and meta-analysis. *International Journal of Rehabilitation Research* 41(4):287-296, 2018.
60. **Alwardat M**, Di Lazzaro G, Schirinzi T, Sinibaldi Salime P, Mercuri NB, Pisani A. Does Pisa syndrome affect upper limb function in patients with Parkinson's disease? An observational cross-sectional study. *NeuroRehabilitation*. 2018 Jan 1;42(2):143-8.
61. Schirinzi T, Di Lazzaro G, Colona VL, Imbriani P, **Alwardat M**, Sancesario GM, Martorana A, Pisani A. Assessment of serum uric acid as risk factor for tauopathies. *Journal of Neural Transmission*. 2017 Sep 1;124(9):1105-8.

62. Etoom M, Hawamdeh M, Hawamdeh Z, **Alwardat M**, Giordani L, Bacciu S, Scarpini C, Foti C. Constraint-induced movement therapy as a rehabilitation intervention for upper extremity in stroke patients: systematic review and meta-analysis. *International Journal of Rehabilitation Research*. 2016 Sep 1;39(3):197-210.
63. Annino G, Palazzo F, **Alwardat M**, Manzi V, Lebone P, Tancredi V, Sinibaldi PS, Caronti A, Panzarino M, Padua E. Effects of long-term stimulation of textured insoles on postural control in health elderly. *The Journal of sports medicine and physical fitness*. 2016 Sep.

#### **B) Commentaries & Letters to the Editors:**

1. Etoom M, Alwardat S, **Alwardat M**. Issues for conducting meta-analyses in COVID-19. Commentary on "Prevalence and severity of corona virus disease 2019 (COVID-19): A systematic review and meta-analysis". *Journal of Clinical Virology*. 2020 Apr 28;104389.
2. **Alwardat M**. Comments on "Transcutaneous electrical nerve stimulation improves walking capacity and reduces spasticity in stroke survivors: a systematic review and meta-analysis". *Clinical rehabilitation*. 2018;32(5):705-6.
3. **Alwardat M**. Comments on: "Positive Effects of Extracorporeal Shock Wave Therapy on Spasticity in Post-Stroke Patients: A Meta-Analysis". *J Stroke Cerebrovasc Dis*. 2018; 27:2046.
4. **Alwardat M**, Etoom M. Comments on: "Transcranial Direct Current Stimulation for Obsessive-Compulsive Disorder: A Systematic Review". *Brain Sci*. 2018, 8, 55.
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15. **Alwardat M**, Khraiwesh Y, Etoom M. Quality of Life After Motor Cortex Stimulation: Clinical Results and Systematic Review of the Literature. *Neurosurgery*. 2018;83(3): E131.

#### **C) Conference Proceedings**

1. **Al-Wardat M** and Etoom M. The Interrelationship Between Pain, Mental Health, and Physical Activity in Parkinson's Disease: A Comparative Study with Healthy Controls. 30th world congress on Parkinson's disease and related disorders 2025, May 7-10, New York, USA.
2. **Al-Wardat M**, Al Rjoub T, Alrawashdeh A, Etoom M. The Effect of Psychological Interventions on Neck Pain and Disability in Patients with Whiplash: a Systematic Review and Meta-Analysis. 24 Annual Scientific Meeting, British Pain Society 2024, June 4-6, Nottingham UK.

3. **Al-Wardat M** and Geroin C. Axial Postural Abnormalities and Pain in Parkinson's disease, Oral presentation. 12th World Congress for Neurorehabilitation Congress 2022. December 14-17, Vienna, Austria.
4. **Alwardat M.** The potential impact of physical activity to increase serum a-klotho levels in people with Parkinson's disease. Movement Disorder Society Virtual Congress 2021, September 17-22, 2021.
5. **Alwardat M.** Salimei PS, Mercuri N, Pisani N. The effect of postural deformities on back function and pain in patients with Parkinson's disease. 13th International Society of Physical and Rehabilitation Medicine World Congress (ISPRM 2019), June 9-13, 2019 Kobe-Japan.
6. Scalise S, Di Lazzaro G, **Alwardat M.** Patera M, Pietrosanti L, Saggio G, Schirinzi T, Mercuri N, Pisani A. Transcranial direct current stimulation (tDCS) on PD patients with freezing of gait: preliminary finding. 5° Congress Academic LIMPE-DISMOV, May 22-24, 2019, Catania-Italy.
7. Di Lazzaro G, Ricci M, Schirinzi T, **Alwardat M.** Pallotti A, Giannini F, Mercuri N, Saggio G, Pisani A. Technology-Based assessment of Bradykinesia, gait and balance in newly diagnosed, drug free Parkinson's disease. XLIX congress Italian society of Neurology, October 27-30, 2018 Rome-Italy.
8. **Alwardat M.** Di Lazzaro G, Schirinzi T, Pisani A. Does Pisa syndrome affect upper limb function in patients with Parkinson's disease?. 6<sup>th</sup> Biennial Workshop on Dystonia: "Dystonia: the link between hypo-and hyperkinetic movement disorders?", May 12-13, 2017, Rome-Italy.

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#### Conferences Attended

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1. 30th world congress on Parkinson's disease and related disorders 2025, May 7-10, New York, USA.
2. 24 Annual Scientific Meeting, British Pain Society 2024, June 4-6, Nottingham UK.
3. 12th World Congress for Neurorehabilitation Congress 2022. December 14-17, Vienna, Austria.
4. Cerebral Palsy International Virtual Conference 2021 Friday, October 22, 2021.
5. International Association for the Study of Pain (IASP) COVID-19 and Pain Virtual Program, September 8-10, 2021.
6. Movement Disorder Society Virtual Congress 2021, September 17-22, 2021.
7. Education Beyond 2021 virtual conference hosted by Accreditation Service for International Schools, Colleges & Universities (ASIC) Tuesday 30th March 2021 & Wednesday 31st March 2021.
8. 14<sup>th</sup> International Society of Physical and Rehabilitation Medicine World Congress (ISPRM 2020), March 4-9, 2020, Orlando-Florida- USA.
9. 6<sup>th</sup> Biennial Workshop on Dystonia: "Dystonia: the link between hypo-and hyperkinetic movement disorders?" May 12-13, 2017, Rome-Italy.
10. Second congress of GDS Young Scientist. December 03, 2018, Rome-Italy.
11. 13<sup>th</sup> International Society of Physical and Rehabilitation Medicine World Congress (ISPRM 2019), June 7-13, 2019, Kobe-Japan.
12. 7th Biennial Workshop on Dystonia and Parkinson's Disease: "Cellular and Molecular targets for novel therapeutics" September 18-19, 2019, Rome-Italy.

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#### PROFESSIONAL WEBSITES/ACCOUNTS LINKS

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- Official Personal Webpage (at Jordan University of Science & Technology): <https://www.just.edu.jo/eportfolio/Pages/Default.aspx?email=msalwardat>
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