Name: Alham Al-Sharman

Present appointment:

Assistant professor, Department of Rehabilitation Sciences, Faculty of Applied Medical Sciences, Jordan University of Science and Technology.

Address:

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Qualifications

BS Physical Therapy Jordan University of Science & Technology (J.U.S.T)

PhD in Rehabilitation Sciences/ Kansas University Medical Center (Neurological Rehabilitation)

Scholarships

2007- 2013: Scholarship from Jordan University of Science and Technology for PhD study in Kansas University Medical Center

2010 to 2013: Scholarship paid the difference in tuition fees between international student fee and local student fee from Kansas University Medical Center/ Sleep, Health, and Wellness Laboratory, Dr. Catherine F. Siengsukon

Professional registration:

License to practice physiotherapy Jordan Ministry of Health

Professional association membership

Member of Jordanian Physical Therapy Association

Previous and other appointments

September 2013- present: Assistant professor, University of Science and Technology, Faculty of Applied Medical Sciences, Irbid-Jordan

- Oct 2007- February 2013: Full time PhD student, Kansas University Medical Center, School of Health profession, Kansas (scholarships from Jordan University of Science and Technology)
- Oct 2008- February 2013: Full time Research Assistant, Kansas University Medical Center, School of Health profession, Kansas
- 2005-2007: Full Time Teaching Assistant, Jordan University of Science and Technology, Faculty of Applied Medical Sciences, Irbid-Jordan
- 2001 2005: Full time BSc student, Jordan University of Science & Technology (J.U.S.T) BS Physical Therapy (honours in 5 semesters).

Administrative services held

September 2016- August 2017: a member of the scientific research committee, department of rehabilitation sciences, faculty of applied medical sciences, Jordan university of science and technology.

September 2016-September 2017: representative of department of rehabilitation sciences in the council committee of faculty of applied medical sciences, Jordan university of science and technology.

September 2013-September 2015: a member of the community service committee at the faculty of applied medical sciences. Jordan university of science and technology

Professional services held

June 2016 till June 2017: member of the Jordanian Physiotherapy Society.

March 2017-March 2018: Scientific committee at the Jordanian Physiotherapy Society.

Journal reviewer

Journal of the American Geriatrics Society

Physiotherapy Research International

Clinical/teaching training (received)

2015: Promoting arm recovery in stroke survivors with sever paresis. World Congress of Physical Therapy (WCPT), Singapore.

2016: Basic Vestibular Rehabilitation: An Evidence Based Course with Practical Intervention. Susan L. Whtnev

2016: The MDS-AOS Rehabilitation Updates in Parkinson's Disease.

2016: Assessment & Innovative Teaching in Applied Medical Science/ 12credit hours

2018: Contemporary Teaching Methods/ 12 credit hours

Teaching Experiences

September 2013 till present: provided coordinating and teaching the following courses: advanced clinical practice, clinical practice in burns and reconstructive surgery, clinical practice in burns and reconstructive surgery (lab), clinical practice in neurology, disability and the society(not allowed for rehabilitation science students), introduction to clinical medicine, introduction to clinical medicine (lab), musculoskeletal assessment, musculoskeletal assessment (lab), physical therapy in geriatrics, therapeutic exercise therapeutic exercise (1), therapeutic exercise (1) (lab).

September 2017till present: Provided coordinating and teaching for the following courses in the master program in rehabilitation sciences and master program in physical therapy:

Evidence based practice in physical therapy

Evidence-based clinical reasoning in rehabilitation sciences

Participate in teaching the following courses:

Advance neuroscience in PT

Advanced Theories and Practice in Neurological Rehabilitation (1)

International teaching experience

2016: teaching the master program two courses (Pain modulation and neuro physiotherapy course) at Alneelain university- faculty of physiotherapy -Sudan

Curriculum reform and academic programs' accreditation experiences

2016- 2018: Participated in the activities to obtain the World Congress of Physical Therapy (WCPT) accreditation for the Bsc program of physical therapy at JUST.

2015: A member of departmental committee to reform the Bsc curriculum in physical therapy at JUST.

Research interest

MY research interests are aimed at understanding how non-motor symptoms impacts physical and cognitive function, learning, and overall health in adults both with and without neurologic injury or disease (multiple sclerosis). The current research focuses on examining the use of interventions to improve motor learning in people with multiple sclerosis and understanding the factors that might influence motor learning. The specific objective is to develop approaches to maximizing opportunities for these patients to live independently. The

current research also focuses on examining and characterizing main motor and non-motor impairments that need to be targeted when planning therapeutic interventions for individuals with multiple sclerosis and Parkinson's disease. Our studies highlighted main issues in terms of balance, mobility, sleep, and cognitive impairments that need to be considered when designing exercise interventions for these individuals. Alongside this work, we identified a battery of outcome measures that needs to be translated into Arabic that have the utility to be used in exercise intervention studies in Jordan and other Arabic Speaking countries

Previous achievements of the candidate in field of research

Understanding the factors that might affect the quality of life in people MS in Jordan Characterizing motor learning in people with MS

Determine the factors that might affect motor learning in people with MS such as fatigue and cognitive Highlighting interaction effects between exercise, cognition and sleep and blood biomarkers in these populations

Understanding the effect of aerobic exercise on sleep quality and related biomarkers

Activities having an impact on the development of scientific research

I have published several articles and participated in many conferences on the area of neurodegenerative diseases. I successfully obtained funding for several studies (both observational and interventional) in this field.

Master thesis student supervision

- 1- Cross Cultural Adaptation and Psychometric Evaluation of the Physical Activity and Disability Survey Revised in People with Multiple Sclerosis [Main supervisor [student name; Raffat Masri]-[Ongoing]
- 2- Investigating the Factors that Affect Quality-of-Life in Jordanian Women with Breast Cancer. [Main supervisor [student name; Areen Al-Sarhan]-[Ongoing]
- **3-** Work-Related Musculoskeletal Disorders among Physiotherapists in Jordan: Prevalence, risk factors, and impacts. [student name; Ruba Batainih]-[Ongoing]
- **4-** Gait and balance difficulties under cognitive-dual task conditions in people with multiple sclerosis: which clinical and personal characteristics are important? [Main supervisor (student name; Wala Azayzeh)]-[Completed]
- 5- Examining the relationship between motor learning, cognition, and sleep quality and related biomarkers in individuals with Parkinson's disease (PD). [Main supervisor (student name; Ismail Ismail)]-[
 Completed]
- **6-** Examining the relationship between motor learning and sleep quality, cognition, and depression in individuals with multiple sclerosis. [Main supervisor (student name; Heba Khazaleh)]-[Completed]
- **7-** Physical Activity in Multiple Sclerosis: Which Clinical Characteristics Are Important? [Co-supervisor (student name; Shada Khazaleh)]-[Completed]
- 8- The association between sleep deficits sleep biomarkers and physical activity in people with multiple sclerosis. [Co-supervisor (student name; Aseel Aburub)]-[completed]
- 9- The relationship between antioxidant gene (NRF2), sleep disturbances and physical activity in individuals with multiple sclerosis (MS). [Main supervisor (student name; Ahmad Namarneh)]-[completed]

Funded projects

- **1-** Association between calcium levels and mental and body well-being in people with multiple sclerosis and Parkinson's disease in Jordan. (7700)(PI- funded by JUST) (Ongoing).
- **2-** Work-Related Musculoskeletal Disorders among Physiotherapists in Jordan: Prevalence, risk factors, and impacts. (6700)(PI- funded by JUST) (Ongoing)
- 3- Modified Fatigue Impact Scale, Stop Bang Questioner, and State-Trait Anxiety Inventory (STAI): Reliability and Validity of Arabic versions in People with Multiple Sclerosis. (4800 JD) (PI- funded by JUST) (Ongoing).
- 4- Gait and balance difficulties under cognitive-dual task conditions in people with multiple sclerosis: which clinical and personal characteristics are important? (2920 JD) (PI- funded by JUST) (Ongoing)
- **5-** Examining the relationship between motor learning, cognition, and sleep quality and related biomarkers in individuals with Parkinson's disease (PD). (6300 JD) (PI- funded by JUST) (Ongoing).
- **6-** Examining the relationship between motor learning and sleep quality, cognition, and depression in individuals with multiple sclerosis. (4520 JD) (PI- funded by JUST) (Ongoing) (6000 JD

- 7- The effect of aerobic exercise on serum and saliva melatonin and cortisol, sleep disturbances, fatigue, depressive symptoms, and ambulatory function in individuals with multiple sclerosis (15.000); funded by Jordan University of Science and Technology; (PI- funded by JUST) (Completed)
- 8- Understanding the Perception of Physical Therapists and Occupational Therapists in Jordan about the Importance of Sleep in the Rehabilitation and Motor Learning: A Survey Study. (2420 JD) (PI- funded by JUST) (Completed)
- 9- The relationship between antioxidant gene (NRF2), sleep disturbances and physical activity in individuals with multiple sclerosis (MS) (5920 JD) (PI- funded by JUST) (Completed)
- **10-** Understanding Motor Learning in Patients with Multiple Sclerosis. (9955) (PI- funded by JUST) (Completed)
- **11-** Association between magnesium levels and mental and body well-being in neurodegenerative disease. (8850 JD) (CoPI- funded by JUST) (Ongoing)
- **12-** Physical Activity in Multiple Sclerosis: Which Clinical Characteristics Are Important? (6000 JD) (CoPIFunded by JUST) (Ongoing).

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- **14-** The relationship between pain, physical activity and blood biomarkers in people with Parkinson's disease. (6000 JD) (CoPI-Funded by JUST) (Completed).
- **15-** Virtual Reality Based Motor Control Learning for People with Multiple Sclerosis: A Pilot Study (25.000JD); Co-PI-funded by EU commission (Support to Research and Technological Development & Innovation initiatives and Strategies in Jordan scheme); (Completed).
- 16- Transcranial electrical stimulation in people with PD. (30000 JD); (Co-PI- funded by JUST) (Completed)
- **17-** The association between physical activity and sleep deficits and biomarkers in patients with multiple sclerosis (6000 JD); (Co-PI-funded by JUST) (Completed)
- **18-** Gait variability and risk of falls in people with multiple sclerosis (MS): which clinical characteristics are important? (10.000 JD); funded by Jordan University of Science and Technology; (Co-PI- funded by JUST) (Completed)
- **19-** The association between physical activity and sleep deficits and biomarkers in patients with multiple sclerosis (6.000 JD); funded by Jordan University of Science and Technology; (Co-PI- funded by JUST) (Completed)
- **20-** The role of sleep in learning a functional motor task (4000 JD); (Co-PI- funded by Kansas Partners in Progress Foundation) (Completed)
- 21- Sleep to learn after stroke: Examining the role of sleep parameters and cognition in motor skill learning in individuals with stroke; (25000 dollars) Research assistant; funded by American Heart Association ression scores in people with multiple sclerosis. (2021). Khalid El-Salem, Hanan Khalil, Alham Al-Sharman, National Scientist Development Grant

Relevant publications

Published papers

- 1. **Alham Al-Sharman**, Aldughmi M , Hanan Khalil, Siengsukon CF, Khalid El-Salem. Knowledge and Attitudes of Physiotherapists Toward Sleep: A Survey Study (2021). Work. IN press
- 2. **Alham Al-Sharman**, Heba Mefleh Al-khazaaleh, Hanan Khalil, Ala' S Aburub, Khalid El-Salem. The Relationship between Sleep Quality, Sleep-Related Biomarkers and Motor Skill Acquisition in People with Multiple Sclerosis; a Pilot Study. (2021) Physical therapy. In press
- 3. Khalil H, Alissa N, **Al-Sharman A**, E'leimat I, Qawasmi M, El-Salem K. Understanding the influence of pain & fatigue on physical performance, fear of falling, & falls in people with Parkinson's disease. Neurodegenerative Disease management, 2021. Accepted
- 4. **Al-Sharman** A, Abulhaj I, Khalil H, El-Salem K, Exploring the Relationship between Sleep Quality, Sleep-Related Biomarkers, and Motor Skill Acquisition using Virtual Reality in People with Parkinson Disease; a Pilot Study. Frontier in neurology. 2021.
- 5. El-Salem K, Khalil H, **Al-Sharman A**, Al-Mistarehi A, Yassinan A, Alhayk K. Al Qawasmeha M, Bashayreha S, Kofahia R, Obeidat A. Serum vitamin d inversely correlates with depression scores in people with multiple sclerosis. Multiple sclerosis and related disorders. 2021. 48 (102732).
- 6. Aburub A, Khalil H, Al-Sharman A, El-Salem K. Measuring quality of life and identifying what is important to Jordanian living with multiple sclerosis using the Arabic version of the patient generated index. Physiotherapy research international. 2021. doi: 10.1002/pri.1893.
- 7. El-Salem K, Al-Mistarehi A, Khalil H, **Al-Sharman A,** Yassin A. Serum Tumor Necrosis Factor-Alpha Levels Correlate with Cognitive Function Scales Scores in Multiple Sclerosis Patients. Multiple sclerosis and related disorders. 2020. 47:102621

- 8. Aldughmi M, **Al-Sharman A**, Khalil H, El-Salem E, Alghwiri A. Translation and validation of the Arabic version of the patient determined disease steps in people with multiple sclerosis. Physiotherapy theory and practice. 2020. 6: 1-8.
- Allataifeh E, Khalil H, Almhdawi K, Al-Sharman A, Hawamdeh, El-Salem K, Bumin. The Clinical Correlates of Participation Levels in People with Multiple Sclerosis. NeuroRehabilitation. 2020. 47(2):153-160
- 10. Alghwiri A, Jamali F, Aldughmi M, Khalil H, **Al-Sharman A**, Alhattab D, Al-Radaideh, Abdalla Awidi.(2020) The effect of stem cell therapy and comprehensive physical therapy in motor and non-motor symptoms in patients with multiple sclerosis: A comparative study. Medicine. 2020. 99(34): e21646
- 11. **Al-Sharman, A;** Khalil,H; El-Salem, K; Al-dughmi M; AseelAburub (2019). The effects of aerobic exercise on sleep quality measures and sleep-related biomarkers in individuals with Multiple Sclerosis: a pilot randomised controlled trial" Neuro rehabilitation.
- 12. **Al-Sharman, A;** Khalil,H; El-Salem, K; Alghwiri, A. A; Shada Khazaaleh; Mohammad Khraim (2019). Motor Performance Improvement through Virtual Reality Tasks is Related to Fatigue and Cognition in People with Multiple Sclerosis. Physiotherapy research international.
- 13. Alghwiri, A. A; Khalil,H; **Al-Sharman, A**., & El-Salem, K. (2018). Depression is a predictor for balance in people with multiple sclerosis. Multiple Sclerosis and Related Disordes.
- 14. **Alham Al-Sharman**, Hanan Khalil, Mohammad Nazzal, Nihaya Al-Sheyab, Alia Alghwiri, Khalid El-Salem. (2018). Living with multiple sclerosis: A Jordanian perspective. Physiotherapy research international.
- 15. Hanan Khalil, **Alham Al-Sharman**, Khalid El-Salem; Alia, Alghwiri.(2018). The Development and Pilot Evaluation of Virtual Reality Balance Scenarios in People with Multiple Sclerosis (MS); a Feasibility Study". Neuro rehabilitation
- 16. Hadoush, H., Banihani, S. A., Khalil, H., Al-Qaisi, Y., **Al-Sharman, A.,** & Al-Jarrah, M. (2018). Dopamine, BDNF and motor function postbilateral anodal transcranial direct current stimulation in Parkinson's disease. Neurodegenerative Disease Management
- 17. Hikmat Hadoush, **Alham Al-Sharman**, Hanan Khalil, Saleem A. Banihani, Muhammed Al-Jarrah. (2018) Sleep Quality, Depression, and Quality of Life After Bilateral Anodal Transcranial Direct Current Stimulation in Patients with Parkinson's Disease. Medical Science Monitor Basic Research
- 18. Hikmat Hadoush, Muhammed Al-Jarrah, Hanan Khalil, **Alham Al-Sharman**, Sadik AL-Ghazawi. (2017) Bilateral anodal transcranial direct current stimulation effect on balance and fearing of fall in patient with Parkinson's disease. Neuro rehabilitation.
- 19. Hanan Khalil; **Alham Al-sharman**; Khalid El-Salem: NourAbdo: Alia A. Alghwiri: AseelAburub.(2017) Fear of falling in people with multiple sclerosis: which clinical characteristics are important? Physical Therapy. 97(7):698-706.
- 20. Aseel Aburub, Hanan Khalil, **Alham Al-Sharman**, Mahmoud Alomari, Omar Khabour. (2017) The association between physical activity and sleep characteristics in people with multiple sclerosis. Multiple Sclerosis and Related Disorders. 12 29–33
- 21. Siengsukon, CF, Al-dughmi M, **Al-Sharman A**, Stevens S. (2015) Sleep parameters, functional status and time post-stroke are associated with off-line motor skill learning in people with chronic stroke. Frontiers in Neurology. 30(6):225.
- 22. Al-dughmi M, Stevens S, Siengsukon, CF, **Al-Sharman A.** (2015) Sleep characteristics of individuals with chronic stroke: A pilot study. Nature and Science of Sleep. 21(7):139-45.
- 23. **Al-Sharman A** and Siengsukon CF. (2014) Sleep-Dependent Learning of a Functional Motor Task Declines with Age. Journal of the American Geriatric Society. 62(9):1797-8
- 24. **Al-Sharman A** and Siengsukon CF. (2014) Performance on a Functional Motor Task is Enhanced by Sleep in Middle-Aged and Older Adults. Journal of Neurologic Physical Therapy. 38(3):161-9
- 25. **Al-Sharman A** and Siengsukon CF. (2014) Time Rather than Sleep Enhances Off-Line Learning and Transfer of Learning of an Implicit Continuous Task. Nature and Science of Sleep. 5(6): 27-36
- 26. **Al-Sharman A** and Siengsukon CF. (2013). Sleep Enhances Learning of a Functional Motor Task in Young Adults. Physical Therapy. 93(12): 1625-1635.
- 27. Siengsukon, CF and **Al-Sharman**, **A.** (2011). Sleep promotes offline enhancement of an explicitly learned discrete but not an explicitly learned continuous task. Nature and Science of Sleep. 2011(3): 39-46

Peer reviewed scientific and professional presentations:

- 1. **Alham Alsharman**, Hanan Khalil, Alia Alghwiri, Khalid El-Salem, Aseel Aburub, Duha Al-Shorafat, Sarah Al-Shalabi. Arabic Modified Fn pressatigue Impact Scale: Validity and Reliability in People with Multiple Sclerosis. [abstract]. Neurology 2019; 92 (15 Supplement).
- 2. Khalid El-Salem, **Alham Alsharman**, Hanan Khalil, Alia Alghwiri Understanding Motor Performance in People with Multiple Sclerosis Using Virtual. [abstract]. Neurology 2019; 92 (15 Supplement).

- 3. Khalid El-Salem, **Alham Alsharman**, Hanan Khalil, Duha Al-Shorafat, Patrick Esser, Helen Dawes. The Extent of the Relationship between Sleep Disturbances and walking ability in People with Multiple Sclerosis. [abstract]. Neurology 2019; 92 (15 Supplement).
- 4. Khalil H, **Al-Sharman A**, Alissa N, El-Salem K, Al-Shorofat D. The association between pain and physical activity in people with Parkinson's Disease (PD). [abstract]. Mov Disord. 2018; 33 (suppl 2)
- 5. Khalil H, **Al-Sharman A,** Alissa N, El-Salem K, Al-Shorofat D. The validity of the Arabic King's PD Pain Scale in people with Parkinson's disease [abstract]. Mov Disord. 2018; 33 (suppl 2)
- 6. **Al-Sharman A**, Khalil H, Nazzal M, Algwiri A, El-Salem K., "Perspective and experiences of Jordanian people with multiple sclerosis: A qualitative study [abstract]. ," Multiple Sclerosis Journal, vol. S1:1-24, no. , pp. 0-0, 2016
- 7. **Khalil H**, Al-Sharman A, Kazaaleh S, El-Salem K. The Development of Virtual Reality (VR) Balance Scenarios to Improve Balance in People with Multiple Sclerosis (MS) [abstract]. ECTRIMS online library; 145683. 2016
- 8. Algwiri A, Khalil H, **Al-Sharman A**., "Reliability and validity of the Arabic Activities-specific Balance Confidence scale in people with multiple sclerosis study [abstract]," Multiple Sclerosis Journal, vol. S1:1-24, no., pp. 0-0, 2016
- 9. Aburub A, Khalil H, **Al-Sharman A**, Batayha, "The association between physical activity and sleep deficits and biomarkers in patients with multiple sclerosis [abstract]," Multiple Sclerosis Journal, vol. S1:1-24, no., pp. 0-0, 2016
- 10. Siengsukon C, Al-dughmi M, **Al-Sharman A**, Stevens S. Sleep Characteristics of Individuals with Chronic Stroke: A Polysomnographic Study.. SLEEP 2015, Seattle, WA, poster presentation, June 2015.
- 11. Siengsukon C, **Al-Sharman A**, Stevens S. An Increase in Stage R and a Decrease in Stage N3 is Associated with Motor Skill Learning in Individuals with Chronic Stroke. SLEEP 2015, Seattle, WA, poster presentation, June 2015.
- 12. **Al-Sharman A**, Khalil H, Alomari M, Aburub A, Batayha W, Darwish M, "Sleep latency is a predictor of physical function and physical activity in individuals with Parkinson's disease [abstract]," Physiotherapy, vol. 101, no. Suppl 1, e61-e62, pp. 0-0, 2015, no. Suppl 1, e742-e743, pp. 0-0, 2015
- 13. Khalil H, **Al-Sharman A**, Alomari M, Aburub A, Batayha W, Darwish M, "The comparative ability of three physical function tests for predicting physical activity levels in people with parkinson's disease [abstract]," Physiotherapy, vol. 101
- 14. Siengsukon C, **Al-Sharman A**, Aldughmi M, Bruce J, Lynch S. Sleep promotes off-line motor skills learning and visuospatial memory consolidation in people with multiple sclerosis: A pilot study. American Physical Therapy Combined Sections Meeting. Las Vegas. NV, platform presentation, 2/5/14
- 15. Aldughmi, M., **Al-Sharman**, A., Bruce, J., Lynch, S., Siengsukon, C. Sleep promotes off-line motor skills learning and visuospatial memory consolidation in people with multiple sclerosis: A pilot study Kansas Physical Therapy Association Spring Conference, Wichita, KS, poster presentation, 4/6/13
- 16. Siengsukon, C. Al-Sharman, A Stevens, S. REM Sleep is Moderately Associated With Off-line Motor Skill Learning in Individuals with Chronic Stroke. International Stroke Conference Stroke Nursing Symposium, Honolulu, HI, platform presentation, 2/5/13
- 17. Siengsukon, C. **Al-Sharman**, A. Examining the Influence of Cognitive Function on Off-line Motor Skill Learning in Individuals Following Stroke. American Physical Therapy Combined Sections Meeting, San Diego, CA, platform presentation, 1/23/13
- 18. Siengsukon, C. **Al-Sharman**, **A** Stevens, S. REM Sleep is Moderately Associated With Off-line Motor Skill Learning in Individuals with Chronic Stroke. International Stroke Conference Stroke Nursing Symposium, Honolulu, HI, platform presentation, 2/5/13
- 19. **Al-Sharman A**, & Siengsukon, C. The Role of Sleep in Learning a Functional Motor Task. Kansas Physical Therapy Association Spring Conference, Wichita, KS, platform presentation, 3/31/12
- 20. **Al-Sharman A**, & Siengsukon, C. The Role of Sleep in Learning a Functional Motor Task. American Physical Therapy Combined Sections Meeting, Chicago, IL, poster presentation, 2/11/12
- 21. Siengsukon, C, **Al-Sharman A**, and Stevens, S. Sleep Parameters Associated with Off-line Learning in Individuals with Stroke: A Preliminary Report. American Physical Therapy Combined Sections Meeting, Chicago, IL, poster presentation, 2/10/12
- 22. Blasing M, Hay K, **Al-Sharman A**, Siengsukon C. Examining the Role of Sleep in Learning a Complex Skill, Kasnas Physical Therapy Association Spring Conference, Wichita, KS, poster presentation, 4/9/11

System development

Co-Developed a virtual reality system that can be used for both motor control training and biomechanical assessment for people with movement disorders. This work was accomplished as a result of a project that was funded by the European Union (25,000 EU) (Support to Research and Technological Development &

Innovation initiatives and Strategies in Jordan scheme). A business plan is under writing which will be submitted to JUST incubator to work on commercialization the system

Participation in regional and international conferences

- 1- 3rd International Conference: Physical Therapy Services in the MENA Region. Amman, Jordan. 2018. platform presentation
- 2- 2nd MENA- Committee for Treatment and Research in Multiple Sclerosis (MENACRTIMS) congress. Amman-Jordan. March 2016./ abstract presentation
- 3- World Congress of Physical Therapy (WCPT) congress; Singapore, May 2015/ abstract presentation.
- 4- International Stroke Conference Stroke Nursing Symposium, Honolulu, HI, platform presentation, 2013
- 5- American Physical Therapy Combined Sections Meeting, Chicago, IL, poster presentation, 2012
- 6- Kansas Physical Therapy Association Spring Conference, Wichita, KS, platform presentation, 2012

Community services

- 1. Participated in free medical day that included providing voluntary physiotherapy services in Kuferyopavillage in Irbid in April 2019.
- Participated in free medical day that was specifically devoted to raise awareness in Jordan about role of
 physical therapy in improving health. Participation included providing voluntary screening for
 neurological patients, providing two physiotherapy awareness lectures to people with multiple sclerosis
 and people with Parkinson's disease. The event was held in Amman in April 2017.
- 3. Participated in free medical day that included providing voluntary physiotherapy services in Beit Rass village in Irbid in May 2016.
- 4. Participated in a radio program to increase the awareness about role of physiotherapy in managing people with multiple sclerosis (University of Jordam FM, in March 2016).
- 5. Participated in free medical day that included providing voluntary health screening at Al-Mazar school in Irbid in May 2015.

Presentation's awards and received recognitions

- 2007-2012: Scholarships from Jordan University of Science and Technology for PhD studies at Kansas University Medical Center
- 2. 2001-2005: Honors in 3 semesters in Bsc study
- 3. 2016: Best poster prize at the 2nd MENA- Committee for Treatment and Research in Multiple Sclerosis (MENACRTIMS) congress, Amman, Jordan.
- 4. 2013: Best presentation prize at the Students Research Forum. Kansas University Center