CURRICULUM VITAE

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SKILLS AND EXPERTISE	
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PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS	
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ACADEMIC QUALIFICATIONS

2017 Doctor of Philosophy, The University of Sydney, Australia

Thesis title: Management of complications in people with spinal cord injury

2011 Professional Diploma in Clinical Research, Catalyst Clinical Services Pvt. Ltd., India

2006 Bachelor of Physiotherapy, Garhwal University, India

CURRENT WORK HISTORY

March 2017 to present

Postdoctoral Research Fellow (1FTE), The University of Sydney Projects:

- 1. International Spinal Cord Injury Survey, The University of Sydney, Australia.
- 2. Improving rehabilitation outcomes in adults with spinal cord injury who have cognitive impairment: a Cohort study, The University of Sydney, Australia.
- 3. Phase 2: SCI Wellness project: Digitalisation of the health maintenance tool.
- 4. A novel neuro-cardiac self-regulation therapy to improve autonomic and neural function after spinal cord injury: Clinical trials and translation to implementation

<u>Responsibilities</u>- managing and overseeing all aspects of project planning (including Ethics and Governance) and development; providing advice and information to stakeholders on issues and to support project development and delivery in line with established plans, budgets, timeframes, policy objectives and other priorities.

June 2017 to present

Researcher (Casual), NHMRC Partnership Grant – Clinical Pathways study, The University of Sydney

<u>Responsibilities</u>- data management and designing database; interviewing participants; undertaking follow-up assessments; overseeing the quality of data collection; entering the data into data collection tool (REDCap); ensuring research met national and international ethical codes and good clinical practice standards;

CURRENT PROJECTS

Digitalisation of the Health Maintenance Tool

The Health Maintenance Tool promotes and supports self-management, providing essential knowledge, self-management skills and strategies (such as problem solving, decision-making, goal setting) for people with spinal cord injury living in the community. The primary outcome of this project is to deliver a web-based and app-based interactive platform that accommodate different levels of health literacy and self-management capacity and readiness. In addition, this state-of-the-art tool will provide practical strategies and resources to families and caregivers, as well as health professionals (including General Practitioners). We believe this interactive tool will improve self-management of common health issues along with guidance and pathways for integrated system management.

A novel neuro-cardiac self-regulation therapy to improve function after spinal cord injury

Self-regulation training involves participants learning to regulate their autonomic heart and brain activity via computer/mobile app-based feedback via heart rate variability and controlled breathing. This project will develop a novel approach to improve autonomic functions in people with spinal cord injury. It will also lead to better understanding of the human physiology underpinning the normal and abnormal autonomic function. In addition, the project will investigate the role of transcutaneous epidural stimulation of the spinal cord to modulate top down/bottom up controls related to generating new nerve connections, through neural sprouting, and re-organisation (neuroplasticity).

Development of International COVID-19 and Spinal Cord Injury Database

This project involves development of a sophisticated international database with participation of many countries. The primary aim of this project is to understand the evolution, outcomes and sequelae of COVID-19 in people with spinal cord injury. The other aims of the project are to define predictive factors for COVID-19 infection in people with spinal cord injury; to develop rehabilitation guidelines, resources and other information for wide dissemination; and improve advocacy, policy and health systems preparedness/responses to this Pandemic.

CURRENT COMMUNITY SERVICES AND KEY PROFESSIONAL ROLES

Oct 2018 to present	Member - Technical Working Group and Development Group, The World Health Organisation, HQ Geneva. Project- Package of Rehabilitation Intervention	
	Member – Spinal Cord Injury (SCI) Service Module Advisory Group, The World Health Organisation, HQ Geneva. Project- SCI Service Module	
Jan 2019 to present	Member - Human Research Ethics Committee, Northern Sydney Local Health District, Kolling Institute of Medical Research.	
Feb 2019 to present	Member – External Relations Committee, International Spinal Cord Society (ISCoS).	
Nov 2019 to present	Editorial Team, Spinal Cord Cases and Series.	
Jun 2017 to present	International Editorial Review Board Member , Journal of Physiotherapy (JOP).	

CONTINUING EDUCATION

2020	Clinimetric Course (3 days), Sydney, Australia
2019	NVIVO Workshop (1 day), Sydney, Australia
2017	Introduction to Statistical Analysis of Data from Twins (1 day), Sydney, Australia
2017	TreeAge Software (2 days), TreeAge Training Pty Ltd., Sydney, Australia
2016	Human Ethics Health Medical (60 minutes), The University of Sydney, Sydney, Australia
2016	Research Integrity- Responsible Research Practice (60 minutes), The University of
	Sydney, Sydney, Australia

- 2016 Research Data Management (3 hours), The University of Sydney, Sydney, Australia
- 2015 Good Clinical Practice and Regulatory Requirement for Drug or Device Clinical Trials (1 day), Royal North Shore Hospital, Sydney, Australia
- 2014 Multiple Regression and Statistics Computing Coursework, The University of Sydney, Sydney, Australia
- 2014 Survival Analysis Coursework, The University of Sydney, Sydney, Australia
- 2014 Introductory Biostatistics Coursework, The University of Sydney, Sydney, Australia
- 2014 Health Economic Evaluation (2 days), ICON Services, Sydney, Australia
- 2013 Good Clinical Practice (2 hours), Pfizer Global Ltd- Online
- 2010 Good Clinical Practice (1 hour), Pfizer Global Ltd- Online
- 2007 Certificate in Basic and Advanced Wheelchair Skills (2 months), Indian Spinal Injuries Center, Delhi, India
- 2005 Certificate in Neurodevelopment Therapy: Bo-bath approach (25 hours), Sardar Bhagwan Singh (PG) Institute of Biomedical Sciences and Research, Uttarakhand, India
- 2004 Certificate in Manual Therapy (90 hours) and Upper and Lower Quarter, Mulligan's Approach (32 hours), Capri institute of Manual therapy, Delhi, India

WORK HISTORY

2017 to 2019 **Project Officer (0.5FTE), Spinal Outreach Services, Royal Rehab, Sydney, Australia**.

<u>Responsibilities</u>- managing and overseeing all aspects of project planning (including Ethics and Governance) and development; support project development and delivery in line with established plans, budgets, timeframes, policy objectives and other priorities.

2015 to 2017 Research Assistant, The George Institute of Global Research, Australia.

<u>Responsibilities</u>- assisting PI writing the study protocol; drafting the case report forms; liaising with experts in the field; designing the data entry software; assisting in data analyses

2014 to 2016 Research Assistant for "Whiplash Associated Disorders Study and Text study", Faculty of Health Science, The University of Sydney, Australia.

<u>Responsibilities</u>- data management and designing database; interviewing participants and conducting focus group meeting; overseeing the quality of data collection; entering the data into data collection tool (REDCap); ensuring research met national and international ethical codes and good clinical practice standards;

2013 to 2014 Research Assistant for "Hands-on Study", Royal Rehabilitation Centre Sydney, Australia.

<u>Responsibilities</u>- Oversee the quality of data collection and enter data into pre-designed software and ensuring data meet national and international ethical codes and good clinical practice standards; quality assurance;

2012 to 2013 Senior Research Associate & Clinical Physiotherapist, Indian Spinal Injuries Centre New Delhi, India.

Additional roles:

- Research Governance Officer and Liaison Officer for the Institutional Ethics Committee
- Deputy Project Coordinator- www.elearnSCI.org, a global initiative of

International Spinal Cord Society;

2008 to 2012 Clinical Physiotherapist & Research Associate, Indian Spinal Injuries Centre, India.

Additional roles:

• Research Governance Officer and Liaison Officer for the Institutional Ethics Committee

• Deputy Project Coordinator- <u>www.elearnSCI.org</u>, a global initiative of International Spinal Cord Society;

<u>Responsibilities</u>- the provision and coordination of physiotherapy services to clients with musculoskeletal and neurological conditions; Trial Coordinator for industry-sponsored pharmaceutical trials; Supervising physiotherapy undergraduates and interns; Coordinator for guiding interns and junior staff for designing and supervising the exercises regimen; Oversee the quality of all researches and ensuring it meets national and international ethical and good clinical practice standards;

2006 to 2007 Junior Physiotherapist, Indian Spinal Injuries Centre, India.

Responsibilities- the provision and coordination of physiotherapy services to

clients with musculoskeletal and neurological conditions;

2005 to 2006 Physiotherapy Intern, Indian Spinal Injuries Centre, India.

OTHER HONORARY ROLE

2018 to present	Reviewer to Nature's Scientific Reports		
2017 to present	Reviewer to Asian Spine Journal		
2016 to present	Reviewer to Spinal Cord Journal		
2015 to 2016	Student representative- Postgraduate Research Society, The University of		
	Sydney		
2016 AND	Presentation marker- Allied Health Symposium 2016 and 2017, Kolling		
2017	Institute, Royal North Shore Hospital		

GRANTS, AWARDS AND SCHOLARSHIPS

Awards

- 2020 **Arora M**, McCormick M, O'Leary D, Rowe S, Jerram AS, Middleton JW. Health Maintenance Tool for People with Spinal Cord Injury A tool for consumers from consumers. *Outstanding Postdoctoral Research Award. International Spinal Cord Society* 2020, Virtual UK.
- 2018 Arora, M, Harvey, L, Glinsky, J, Nier, L, Lavrencic, L, Kifley, A, Cameron, I. Electrical stimulation for treating pressure ulcers: A Cochrane Systematic Reviews. <u>Outstanding Postdoctoral Research Award. International Spinal Cord Society 2018</u>, Sydney Australia.
- Arora M, Glinsky J, Chhabra HS, Hossain M, Arumugam N, Bedi P, Lavrencic L, Hayes A, Cameron ID. Telephone-based management of pressure ulcers in people with spinal cord injury in low-income and middle-income countries: a randomised controlled trial. <u>Outstanding Research Award, Asian Spinal Cord Network Conference 2017</u>, Chiang Mai, Thailand.

Arora M, Glinsky J, Chhabra HS, Hossain M, Arumugam N, Bedi P, Lavrencic L, Hayes A, Cameron ID. Telephone-based management of pressure ulcers in people with spinal cord injury in low-income and middle-income countries: a randomised controlled trial. <u>Best Published Paper Award, International Spine and Spinal Injuries Conference 2017</u>, New Delhi, India.

- 2017 **Arora M,** Harvey LA, Lavrencic L, Bowden JL, Nier L, Glinsky JV, Hayes AJ, Cameron ID. A telephone-based version of the spinal cord injury–secondary conditions scale: a reliability and validity study. *Early Career Research Award, World Confederation of Physical Therapy 2017*, Cape Town, South Africa.
- 2016 **Arora M**. Postgraduate Research Student Scheme, Sydney Medical School, The University of Sydney......\$1,554
- 2015 **Arora M**. <u>Postgraduate Research Student Excellence Award</u>, Sydney Medical School, The University of Sydney......\$300
- 2013 **Arora M**. First prize in 3-minute thesis competition at the Kolling Institute of Medical Research, The University of Sydney.
- 2013 Chhabra HS, **Arora M** and Sarda K. Clinical Research Award for the project titled "Autologous bone marrow stem cell transplantation in acute spinal cord injury an Indian pilot study", Association of Spine Surgeons of India.
- 2011 Arora M. Community Service Award, Delhi Spine Society, Delhi, India.
- 2010 Arora M. Distinguished Service Award in Field of Disability, Rotary Club, Delhi, India.
- 2005 **Arora M**. Gold Medal for academic brilliance in all four years of graduation, Sardar Bhagwan Singh (PG) Institute of Biomedical Sciences and Research, Uttarakhand, India.
- 2002 **Arora M**. Best ongoing student, Sardar Bhagwan Singh (PG) Institute of Biomedical Sciences and Research, Uttarakhand, India.

Grants

- Craig A, Middleton J,.....Arora M, et al A novel neuro-cardiac self-regulation therapy to improve autonomic and neural function after SCI: Clinical trials and translation to implementation. *Research Grant:* NSW Ministry of Health Spinal Cord Injury Research Grants Program 2019/20.................\$2,498,267
- 2020 Craig A, Middleton J,.....**Arora M**, et al A novel neuro-cardiac self-regulation therapy to improve autonomic and neural function after SCI: Clinical trials and translation to implementation. *Research Grant:* The University of Sydney............\$500,000

- 2017 Middleton J, **Arora M**, McCormick M, O'Leary D. SCI Wellness Project Phase 1. <u>Research Grants</u>. icare NSW 2017-2019......\$143,637
- 2017 Middleton J, **Arora M**, Cameron I, Gopinath B, et al. International Spinal Cord Injury Community Survey. *Research Grants*. Insurance and Care 2017-2019.......\$240,314

Scholarships

2020	Arora M. Staff Scientific Council: Ramsay Health Care International	Travel Fellowship,
	Royal North Shore Hospital, Australia	\$1500

- 2019 **Arora M.** Spinal Research Institute Travel Fellowship, Australia......\$2000

- 2014 **Arora M**. Sydney Medical School- course work scholarship 2014 semester 2 and 2a, Sydney Medical School, The University of Sydney............\$4,900
- 2013 **Arora M**. Sydney Medical School top-up scholarship, The University of Sydney.\$42,000
- 2012 **Arora M**. Prime Minister's Australia Asia Post Graduate Endeavour Research Award, Department of Education, Government of Australia.....\$290,000

RESEARCH AND TEACHING

Peer reviewed articles

2020

- 33. Eitivipart AC, **Arora M**... et al. Translation, cross-cultural adaptation and reliability testing of the Barriers to Physical Activity and Disability Survey (B-PADS) for Thai People with Spinal Cord Injury. Under review with journal <u>Assessment</u>; submitted 28-Dec-20.
- 32. Sterling M, Rebbeck T...**Arora M** et al. A randomised controlled trial of implementation of a guideline-based clinical pathway of care to improve health outcomes following whiplash injury (Whiplash ImPaCT): statistical analysis plan. Under review with *Brazilian Journal of Physical Therapy*; submitted 25-Nov-20.
- Borg S, Geraghty T, **Arora M**... et al. Employment outcomes following spinal cord injury: a population-based cross-sectional study in Australia. Under review with *Spinal Cord* journal; submitted 20-Nov-20.
- 30. Sandalic D, Tran Y, Craig A, **Arora M**...et al. Confirmatory factor analysis and network analysis of the Neuropsychiatry Unit Cognitive Assessment Tool (NUCOG) in a spinal cord injury sample. Under review with *Spinal Cord* journal; submitted 18-Nov-20.
- 29. Eitivipart AC, **Arora M**... et al. Assessing Physical Activities and Health-Related Quality of Life in Individuals with Spinal Cord Injury: A Phase-2 National Survey in Thailand. Under review with journal of *Disability and Rehabilitation*; submitted 16-Nov-20.
- 28. Eitivipart AC, **Arora M**... et al. Thai Physical Activity Recall Assessment for People with Spinal Cord Injury. Phase-1: Translation and Cross-Cultural Adaptation. Under review with journal of *Disability and Rehabilitation*; submitted 16-Nov-20.
- 27. Griffin A, Leaver A, **Arora M**... et al. Clinimetric properties of self-reported disability scales for whiplash: A systematic review for the whiplash core outcome set (CATWAD). Under review with *Clinical Journal of Pain*; submitted 03-Nov-20.

26. Fekete C, **Arora M**, Reinhardt JD, Gross-Hemmi M, Kyriakides A, Fort ML, Engkasan JP and Tough H. Partnership status and living situation in persons with a physical disability in 22 countries: Are there patterns according to individual and country-level characteristics? International Journal of Environmental Research and Public Health; 17(19), 7002.

- 25. Sandalic D, Craig A, **Arora M**, Pozzato I, Simpson G, Gopinath B, Kaur J, Shetty S, Weber G, Cameron I, Tran Y and Middleton J. A prospective cohort study investigating contributors to mild cognitive impairment in adults with spinal cord injury: study protocol. BMC Neurology (2020) 20:341
- 24. **Arora M**, Harvey LA, Glinsky JV, Nier L, Lavrencic L, Kifley A, Cameron ID (2020). Electrical stimulation for treating pressure ulcers (Review). Cochrane Database of Systematic Reviews. Cochrane Database of Systematic Reviews 2020, Issue 1. Art. No.: CD012196. DOI: 10.1002/14651858.CD012196.pub2.

2019

- 23. Griffin A, Jagnoor J, **Arora M**, Cameron I, Kifley A, et al (2019). Evidence-based care in high- and low-risk groups following whiplash injury: A multi-centre inception cohort study. BMC Health Services Research. BMC Health Serv Res 19, 806. https://doi.org/10.1186/s12913-019-4623-y.
- 22. Alexander M, Alexander J, **Arora M**, Slocum C, Middleton J (2019). A bellweather for climate change and disability: educational needs of rehabilitation professionals regarding disaster management and spinal cord injuries. Spinal Cord Cases and Series. 5, 94 (2019). https://doi.org/10.1038/s41394-019-0239-z
- 21. Eitivipart AC, Oliveira CQ, **Arora M**, Middleton J and Davis GM (2019). Overview of Systematic Reviews of Aerobic Fitness and Muscle Strength Training after Spinal Cord Injury. Journal of Neurotrauma. 36: 2943–2963. doi.org/10.1089/neu.2018.6310.

2018

- 20. Irgens I, Rekand T, **Arora M**, Liu N, Marshall R, Biering-Sorensen F, Alexander M (2018). Telehealth for people with spinal cord injury: a narrative review. Spinal Cord. 56: 643-55.
- 19. Chhabra HS, Sharma S, **Arora M** (2018). Challenges in comprehensive management of spinal cord injury in India and in the Asian Spinal Cord network region: findings of a survey of experts, patients and consumers. Spinal Cord. 56: 71-7.
- 18. Yamato T, **Arora M**, Stevens M, Elkins M, Moseley A (2018). Quality, language, subdiscipline and promotion were associated with article accesses on Physiotherapy Evidence Database (PEDro). Physiotherapy. 104: 122-28.

2017

- 17. **Arora M**, Glinsky J, Chhabra HS, Hossain M, Arumugam N, Bedi P, Lavrencic L, Hayes A, Cameron ID (2017). Cost-effectiveness of telephone-based management of pressure ulcers in people with spinal cord injury in low-income and middle-income countries: a randomised controlled trial. Spinal Cord. 55: 1071-1078.
- 16. **Arora M**, Glinsky J, Chhabra HS, Hossain M, Arumugam N, Bedi P, Lavrencic L, Hayes A, Cameron ID (2017). Telephone-based management of pressure ulcers in people with spinal cord injury in low-income and middle-income countries: a randomised controlled trial. Spinal Cord. 55: 148-54.

15. Bye E, Harvey L, Gambhir A, Kataria C, Glinsky J, Bowden J, Malik N, Tranter K, Lam C, White J, Gollan E, **Arora M**, Gandevia S (2017). Strength training for partially-paralysed muscles in people with recent spinal cord injury: a within-participant randomised controlled trial. Spinal Cord. 55: 460–465.

14. **Arora M**, Harvey LA, Chhabra HS, Sharawat R, Glinsky JV, Cameron ID (2017). The reliability of measuring wound undermining in people with spinal cord injury. Spinal Cord. 55: 304-06.

2016

- 13. **Arora M**, Harvey LA, Glinsky JV, Nier L, Lavrencic L, Kifley A, Cameron ID (2016). Electrical stimulation for treating pressure ulcers (Protocol). Cochrane Database of Systematic Reviews 2016, Issue 5. Art. No.: CD012196. DOI: 10.1002/14651858.CD012196.
- 12. **Arora M**, Harvey LA, Lavrencic L, Bowden JL, Nier L, Glinsky JV, Hayes A, Cameron I (2016). A telephone-based version of the spinal cord injury–secondary conditions scale: a reliability and validity study. Spinal Cord. 54: 402-5.
- 11. Chhabra HS, Sarda K, **Arora M**, Sharawat R, Singh V, Nanda A, et al (2016). Autologous bone marrow cell transplantation in acute spinal cord injury- an Indian pilot study. Spinal Cord. 54: 57-64.

2015

10. **Arora M**, Harvey LA, Hayes AJ, Chhabra HS, Glinsky JV, Cameron ID, Arumugam N, Hossain S, Bedi PK (2015). Effectiveness and cost-effectiveness of telephone-based support versus usual care for treatment of pressure ulcers in people with spinal cord injury in low- and middle-income countries: study protocol for a 12-week randomised controlled trial. BMJ Open. doi:10.1136/bmjopen-2015-008369.

2014

- 9. Harvey L, Glinsky J, Bowden J, **Arora M** (2014). How well do randomised controlled trials of physical interventions for people with spinal cord injury adhere to the CONSORT guidelines? An analysis of trials published over a 10-year period. Spinal Cord. 52: 795–802.
- 8. Halim TA, Chhabra HS, **Arora M**, Kumar S (2014). Pharmacological prophylaxis for deep vein thrombosis in acute spinal cord injury: an Indian perspective. Spinal Cord. 52: 547–50.

2013

- 7. Chhabra HS, Harvey LA, Muldoon S, Chaudhary S, **Arora M**, Brown DJ, et al (2013). www.elearnSCI.org: a global educational initiative of ISCoS. Spinal Cord. 51: 176–82.
- 6. Paudel B, Chhabra HS, Pradhan RL, **Arora M** (2013). Outcome of surgical decompression in simple degenerative lumbar canal stenosis. Nepal Orthopaedic Association Journal. 3: 2-9.
- 5. Chhabra HS, **Arora M** (2013). Neglected traumatic spinal cord injuries: causes, consequences and outcomes in an Indian setting. Spinal Cord. 51: 238-44.

2012

4. Sharma S, Arumugam N, **Arora M** (2012). Effect of Surface Spinal Stimulation on Spasticity in SCI: A Single Case Study. The Journal of Neuroscience: The Official

- Journal of the Society for Neuroscience. 2:1-7.
- 3. Chhabra HS, **Arora M** (2012). Demographic profile of traumatic spinal cord injuries admitted at Indian Spinal Injuries Centre with special emphasis on mode of injury: a retrospective study. Spinal Cord. 50: 745-54.

2011

2. **Arora M**, Mittal VK, Chhabra HS (2011). Rehabilitation Outcomes in Traumatic Cervical Spinal Cord Injury in Elderly People. Topics in Spinal Cord Injury Rehabilitation, June 2011.

2009

1. Chhabra HS, Lima C, Sachdeva S, Mittal A, Nigam V, Chaturvedi D, **Arora M** et al (2009). Autologous olfactory [corrected] mucosal transplant in chronic spinal cord injury: an Indian Pilot Study. Spinal Cord. 47: 887-95.

Book chapters

- 1. Middleton JW, **Arora M**, McCormick M and O'Leary D (2020). Health Maintenance Tool: How to stay healthy and well with a spinal cord injury. A tool for consumers by consumers; *Module 1: The bladder and its associated problems*; Ed. 1, NSW Australia. Publisher icare NSW, 26-Nov-20.
- 2. Middleton JW, **Arora M**, McCormick M and O'Leary D (2020). Health Maintenance Tool: How to stay healthy and well with a spinal cord injury. A tool for consumers by consumers; *Module 2: The bowel and its associated problems*; Ed. 1, NSW Australia. Publisher icare NSW, 26-Nov-20.
- 3. Middleton JW, **Arora M**, McCormick M and O'Leary D (2020). Health Maintenance Tool: How to stay healthy and well with a spinal cord injury. A tool for consumers by consumers; <u>Module 3: The skin and its associated problems</u>; Ed. 1, NSW Australia. Publisher icare NSW, 26-Nov-20.
- 4. Middleton JW, **Arora M**, McCormick M and O'Leary D (2020). Health Maintenance Tool: How to stay healthy and well with a spinal cord injury. A tool for consumers by consumers; *Module 4: Pain*; Ed. 1, NSW Australia. Publisher icare NSW, 26-Nov-20.
- 5. Middleton JW, **Arora M**, McCormick M and O'Leary D (2020). Health Maintenance Tool: How to stay healthy and well with a spinal cord injury. A tool for consumers by consumers; <u>Module 5: Autonomic Dysreflexia</u>; Ed. 1, NSW Australia. Publisher icare NSW, 26-Nov-20.
- 6. Harnett A, Middleton J, *Arora M*, et al. Spinal cord injury rehabilitation practices. In: Eng JJ, Teasell RW, Miller WC, et al., editors. Spinal cord injury rehabilitation evidence. Canada: SCIRE; 2020.
- 7. Cameron I, **Arora M**, Middleton J (2019). Better Pain Management Approaches: Rapid Review for State Insurance Regulatory Agency (SIRA), NSW: 22-Jun-19.
- 8. Cameron I, **Arora M**, Middleton J (2019). Best Practice Opioids Management: Rapid Review for State Insurance Regulatory Agency (SIRA), NSW: 15-Apr-19.
- 9. Chhabra HS, **Arora M** (2015). Chapter 62 Neglected Traumatic Spinal Cord Injuries. In Chhabra HS (ed). ISCoS Textbook on Comprehensive Management of Spinal Cord Injury. Lippincott Williams & Wilkins; India. Page 929-940.
- 10. Chhabra HS, Sharma S, **Arora M** (2015). Chapter 66 Challenges in management of Spinal Cord Injuries Less and Least Developed Countries. In Chhabra HS (ed). ISCoS

- Textbook on Comprehensive Management of Spinal Cord Injury. Lippincott Williams & Wilkins; India. Page 984-998.
- 11. Chhabra HS, Raghavendra V, **Arora M** (2015). Chapter 17 Neglected Traumatic Spinal Cord Injuries surgical perspectives. In Chhabra HS (ed). ISCoS Textbook on Comprehensive Management of Spinal Cord Injury. Lippincott Williams & Wilkins; India. Page 274-283.
- 12. Chhabra HS, Mahajan R, Chaudhary S, **Arora M** (2015). Chapter 17 Acute management of patients with spinal cord injury and rehabilitation. Bhave A (ed). Modern Techniques in Spine Surgery. Jaypee Brothers Medical Pub; New Delhi, India. 1st edition. Page 137-153.
- 13. Chhabra HS, **Arora M** (2011). Chapter 34 Epidemiology of Traumatic Spinal Cord Injuries. Sekharan R (ed). Spinal Trauma and Infections, Association of Spine Surgeon of India (ASSI) Textbook. Jaypee Brothers Medical Pub; New Delhi, India. 1st edition. Page 327-337.

Other published documents

- 1. **Arora M**. Standard Operating Procedure (SOP) for Research Advisory Committee-Spinal Cord Society of Indian Spinal Injuries Centre Version 1.1 dated 12 Jan 2012.
- 2. **Arora M**. Standard Operating Procedure (SOP) for Clinical Research at Indian Spinal Injuries Centre Version 1.1 dated 19 Aug 2010.
- 3. **Arora M**. Part 1: Leave Your Back Ache Behind. Newspaper article July 2010, The Times of India Times Wellness.
- 4. **Arora M**. Part 2: Leave Your Back Ache Behind. Posture and Ergonomics. Newspaper article November 2010, The Times of India Times Wellness.

Conference proceedings:

- A. International Society of Physical Rehabilitation and Medicine
 - ✓ Orlando, USA (March 2020)
 - **Arora M** and Middleton J. *ISPRM-WHO Liaison: First results of the InSCI Survey:* Effects of functional independence on activity and participation in people with a spinal cord injury: a 22 InSCI countries comparison. (Platform presentation)
 - **Arora M**, McCormick M, O'Leary D, Rowe S, Jerram AS, Middleton JW. Health Maintenance Tool for People with Spinal Cord Injury A tool for consumers from consumers. (Poster presentation)

B. International Spinal Cord Society

- ✓ Virtual, UK (September 2020)
 - Arora M, Fekete C, Marshall R, Hajjioui A, Joseph C, Utiyama D and Middleton JW. Effects of functional independence on activity and participation in people with a spinal cord injury: a 22 InSCI countries comparison. (Accepted as platform presentation)
 - **Arora M**, McCormick M, O'Leary D, Rowe S, Jerram AS, Middleton JW. Health Maintenance Tool for People with Spinal Cord Injury A tool for consumers from consumers. (Accepted as poster presentation and received an Early Career Researcher Award)

✓ Nice, France (November 2019)

• Arora M, Geraghty T, Marshall R, Nunn A, Middleton JW for the Aus-InSCI group. Shoulder pain, it's prevalence, patterns and impact on people with spinal cord injury in Australia: Sub-study of the Aus-InSCI community survey. (Platform presentation)

• Middleton JW, **Arora M (Presenting Author)**, Craig A, Cameron I, Gopinath B, Geraghty T, Marshall R, Clark J, Nunn A, Ferrante A for the Aus-InSCI group. Implementation of the International Spinal Cord Injury Survey in Australia using a population-based design. (*Poster presentation*).

✓ Sydney, Australia (September 2018)

- **Arora M**, Harvey LA, Glinsky JV, Nier L, Lavrencic L, Kifley A, Cameron ID. Electrical stimulation for treating pressure ulcers. (*Platform presentation*)
- **Arora M** and Middleton J. Directed Acyclic Graphs: Casual Inference. (*Platform presentation*)

✓ Vienna, Austria (September 2016)

- Arora M, Glinsky J, Chhabra HS, Hossain M, Arumugam N, Bedi P, Lavrencic L, Hayes A, Cameron ID. A low-cost model of care to help people in low-income countries manage pressure ulcers at home: a randomised controlled trial. (*Platform presentation*)
- **Arora M**, Harvey LA, Lavrencic L, Bowden JL, Nier L, Glinsky JV, Hayes A, Cameron ID. A telephone-based version of the spinal cord injury–secondary conditions scale: a reliability and validity study. (*Poster presentation*)
- **Arora M**, Harvey LA, Chhabra HS, Sharawat R, Glinsky JV, Cameron ID. The reliability of measuring wound undermining in people with spinal cord injury. (*Poster presentation*)

✓ London, UK (September 2012)

• **Arora M**, Chhabra HS. Somatosensory patterns in individual with neuropathic pain after spinal cord injury. (*Platform presentation*)

✓ New Delhi, India (October 2010)

• **Arora M**, Chhabra HS. Does physical therapy affect outcomes in chronic spinal cord injury subjects undergoing cellular therapy? (*Platform presentation*)

✓ Florence, Italy (October 2009)

- **Arora M**. Analysis of predictors of functional outcomes in SCI: there is no consensus. (*Poster presentation*)
- **Arora M**. Associated pain and strain injuries in paraplegic wheelchair sports person. (*Poster presentation*)

C. Asian Spinal Cord Network

✓ Kuala Lumpur, Malaysia (September 2019)

• **Arora M.** What are the steps and tips for undertaking a Cochrane Interventional Review and what are the common challenges? (*Invited speaker*)

✓ Chiang Mai, Thailand (December 2017)

- **Arora M**, Glinsky J, Chhabra HS, Hossain M, Arumugam N, Bedi P, Lavrencic L, Hayes A, Cameron ID. Telephone-based management of pressure ulcers in people with spinal cord injury in low-income and middle-income countries: a randomised controlled trial. (*Platform presentation*)
- **Arora M**, Harvey LA, Lavrencic L, Bowden JL, Nier L, Glinsky JV, Hayes A, Cameron ID. A telephone-based version of the spinal cord injury–secondary conditions scale: a reliability and validity study. (*Platform presentation*)

✓ Savar, Bangladesh (November 2014)

• Arora M, Harvey LA, Hayes AJ, Chhabra HS, Glinsky JV, Cameron ID, Arumugam N, Hossain S, Bedi PK. A 12-week telephone based support for management of pressure ulcers in people with spinal cord injury- study protocol.

✓ Kaula Lumpur, Malaysia (November 2012)

• **Arora M**, Chhabra HS. Somatosensory patterns in individual with neuropathic pain after spinal cord injury. (*Platform presentation*)

✓ Colombo, Sri Lanka (October 2011)

• **Arora M**, Mittal V, Chhabra HS. Rehabilitation outcomes in traumatic cervical spinal cord injury in elderly people. (*Platform presentation*)

✓ New Delhi, India (October 2010)

• **Arora M**, Kovindha A, Hasnan N. Patients with SCI in south-east Asia region (SEAR): epidemiology based on the international spinal cord society data set. (*Platform presentation*)

✓ Kathmandu, Nepal (November 2009)

• **Arora M.** Factors hindering paraplegics from wheelchair sports. (*Platform presentation*)

✓ Hanoi, Vietnam (2008)

• **Arora M.** Body weight supported treadmill training versus over ground gait training: A comparative study on the effects of gait performance of motor incomplete spinal cord injury subjects. (*Platform presentation*)

D. International Spine and Spinal Injuries Conference

✓ Delhi, India (November 2017)

• **Arora M**, Glinsky J, Chhabra HS, Hossain M, Arumugam N, Bedi P, Lavrencic L, Hayes A, Cameron ID. Telephone-based management of pressure ulcers in people with spinal cord injury in low-income and middle-income countries: a randomised controlled trial. (*Best published paper presentation*)

✓ Kolkata, India (November 2011)

• **Arora M**, Chhabra HS. Demographic profile of traumatic SCI treated at the Indian Spinal Injuries Centre- A retrospective study. (*Platform presentation*)

✓ Chandigarh, India (December 2009)

- **Arora M.** Factors hindering paraplegics from wheelchair sports. (*Platform presentation*)
- **Arora M.** Analysis of predictors of functional outcomes in SCI: there is no consensus. (*Platform presentation*)

E. Allied Health Symposium, Sydney, Australia (Nov 2017)

• **Arora M**, Harvey LA, Glinsky JV, Nier L, Lavrencic L, Kifley A, Cameron ID. Electrical stimulation for treating pressure ulcers. (*Platform presentation*)

F. World Confederation of Physical Therapy,

- ✓ Geneva, Switzerland (May 2019)
 - **Arora M**, Harvey LA, Glinsky JV, Nier L, Lavrencic L, Kifley A, Cameron ID. Electrical stimulation for treating pressure ulcers. (*Platform presentation*)
 - Griffin A, Rebbeck T, Jagnoor J, <u>Arora A</u> (Presenting Author), Kifley A, Sterling M, Kenardy J, Cameron I. Evidence-based care in high- and low-risk groups following whiplash injury: a multi-centre inception cohort study. (*Platform presentation*)

✓ Cape Town, South Africa (July 2017)

- Arora M, Glinsky J, Chhabra HS, Hossain M, Arumugam N, Bedi P, Lavrencic L, Hayes A, Cameron ID. A low-cost model of care to help people in low-income countries manage pressure ulcers at home: a randomised controlled trial. (*Rapid five Platform presentation*)
- **Arora M**, Harvey LA, Lavrencic L, Bowden JL, Nier L, Glinsky JV, Hayes A, Cameron ID. A telephone-based version of the spinal cord injury–secondary conditions scale: a reliability and validity study. (*Poster presentation*)

G. New Horizons, Sydney, Australia (November 2016)

• Arora M, Glinsky J, Chhabra HS, Hossain M, Arumugam N, Bedi P, Lavrencic L, Hayes A, Cameron ID. Telephone-based management of pressure ulcers in people with spinal cord injury in low-income and middle-income countries: a randomised controlled trial. (*Poster presentation*)

• **Arora M**, Harvey LA, Lavrencic L, Bowden JL, Nier L, Glinsky JV, Hayes A, Cameron ID. A telephone-based version of the spinal cord injury–secondary conditions scale: a reliability and validity study. (*Poster presentation*)

• **Arora M**, Harvey LA, Chhabra HS, Sharawat R, Glinsky JV, Cameron ID. The reliability of measuring wound undermining in people with spinal cord injury. (*Poster presentation*)

HDR Supervision

- 1. Adjunct Supervisor for **Paul Watson**, MPhill/PhD Candidate at the University of Sydney (Faculty of Medicine and Health) for thesis titled "The physical activity and barriers to physical activity surveys in people with spinal cord injury living in Australia: A mixed methods analysis".
- 2. Adjunct Supervisor for **Danielle Sandalic**, PhD Candidate at the University of Sydney (Faculty of Medicine and Health) for thesis titled "Cognitive Impairment in people with Spinal Cord Injury".
- 3. Adjunct Supervisor for **Aitthanatt Eitivipart**, PhD Candidate at the University of Sydney (Faculty of Medicine and Health) for thesis titled "Physical Activity and Ageing after Spinal Cord Injury: A Mixed-Methods, Cross-Cultural Approach to Health".
- 4. Coordinator for the Research Methodology Series at the John Walsh Centre for Rehabilitation Research, Kolling Institute of Medical Research for HDR students.
- 5. Auxiliary Research Supervisor for **Parneet Kaur**, Masters in Physiotherapy (Neurology) at Punjabi University, India for the study titled "Effect of surface spinal stimulation and special therapeutic intervention on spasticity in patients with spinal cord injury".
- 6. Research Supervisor for two clinical research students for their research projects for partial fulfillment of Masters in Clinical Research 2011.

Teaching presentations

- 1. **Arora M.** What are the steps and tips for undertaking a Cochrane Interventional Review and what are the common challenges? (ASCoN, Kuala Lumpur, Malaysia- September 2019)
- 2. **Arora M** and Middleton J. Directed Acyclic Graphs: Casual Inference. InSCI Workshop (ISCoS, Sydney, Australia- September 2018).
- 3. **Arora M**. The reliability of measuring wound undermining in people with spinal cord injury- Plenary session. (ASCoN, Chiang Mai, Thailand- December 2017).
- 4. **Arora M.** Basic of REDCap- Teaching session for postgraduate students. (John Walsh Centre for Rehabilitation Research, Kolling Institute, Sydney, Australia- September 2017).
- 5. **Arora M.** Workshop on TeleSCI around the World (ISCoS, Vienna, Austria- September 2016).
- 6. **Arora M.** Research Methodology (Indian Spinal Injuries Centre, Delhi, India- June 2015).
- 7. **Arora M.** Pain Assessing and managing- Physiotherapy and Occupational Therapy Perspectives (Combined ASCoN & ISSICON, Coimbatore, India- November 2013).
- 8. **Arora M.** Role of Ergonomics & Postural Counseling in Back Pain (National Dairy Development Board, Delhi, India- February 2013).

9. **Arora M.** Outcomes Assessment after SCI (ISSICON, New Delhi, India- November 2012).

- 10. **Arora M.** Neurological and Functional Evaluation after SCI (ISSICON, New Delhi, India-November 2012).
- 11. **Arora M.** Gait: Understanding Movement (E-Learning Workshop for Comprehensive Management of SCI, New Delhi, India- April 2012).
- 12. **Arora M.** Data Management and Research Methodology (ASCoN, Colombo, Sri Lanka-October 2011).
- 13. **Arora M.** Role of Ergonomics & Postural Counseling in Back Pain (Royal Bank of Scotland, Haryana, India- September 2010).
- 14. **Arora M.** Role of Ergonomics & Postural Counseling in Back Pain (SMC Insurance Company, Delhi, India- June 2010).
- 15. **Arora M.** Posture Counseling in Back Pain (Indian Spinal Injuries Centre, New Delhi, India- February 2008).
- 16. **Arora M.** Role of Physiotherapy in Osteoporosis (Indian Spinal Injuries Centre, New Delhi, India- April 2008).
- 17. **Arora M.** Role of Ergonomics Advices in Day to Day Life (PEPSICO Pvt. Ltd, Haryana, India- June 2007).

Abbreviations: ISSICON- International Spinal Cord Society Meeting; ASCoN- Asian Spinal cord Network Meeting; ISCoS- International Spinal Cord Society

SKILLS AND EXPERTISE

Research expertise

- ✓ All facets of clinical trials including economic analysis
- ✓ Undertaking a high-quality systematic review
- ✓ Clinimetric properties
- ✓ Management of multicentre sites managing 10 teams from the four Australian States
- ✓ Analyses of data including interpretation of the results
- ✓ Interview/survey design and implementation including individual assessments, web-based interviewing, and focus groups

Technical skills

- ✓ Statistical packages skills including STATA, SPSS and TreeAge
- ✓ Advanced data management and research software life RevMan, NVIVO, TreeAge, GRADEPro and REDCap.
- ✓ Advanced skills Microsoft Word, PowerPoint, Excel and Publisher
- ✓ Expert in managing web-based and online research databases and systematic review.

Communication and organisational skills

- ✓ Experienced Project Manager and Research Coordinator
- ✓ Staff and student training, management and mentoring
- ✓ Participant recruitment and assessment
- ✓ Research, critical analysis and report writing
- ✓ Skilled and experienced public speaker and presenter including conferences and workshops
- ✓ Highly organised with efficient time-management skills

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- ✓ Proficient working in both team environments and independently✓ Excellent language skills, both written and oral
- ✓ Effective communication with vast range of audiences and backgrounds

PROFESSIONAL MEMBERSHIPS AND AFFILIATIONS

Affiliations

- ✓ Member of International Spinal Cord Society: Registration no. 101200
- ✓ Indian Association of Physiotherapy: Registration no. *L-17776*
- ✓ Chairman, Physiotherapy Committee of Spinal Cord Society (2012-13): Registration no. 1336.

Conference Organising Committee Member

- o International Spinal Cord Society 2018 conference
- o John Walsh Centre for Rehabilitation Research Forum (2015, 2018 and 2019)
- o International Spinal Cord Society 2010 conference
- o Conference on Intervertebral Lumbar Disc
- o International Spine and Spinal Injuries Conference (2006, 2007, 2008, 2009, 2010 and 2011).

REFEREES

Prof. James W Middleton	Prof. Ashley Craig
Professor of Rehabilitation Medicine	Professor of Rehabilitation Studies
Chair, ISCoS External Relations Committee	John Walsh Centre for Rehabilitation Research
Northern Clinical School	Northern Clinical School
Faculty of Medicine and Health	Faculty of Medicine and Health
The University of Sydney	The University of Sydney
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