

BIO-DATA (Long-Format)
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- 1. Name** : **Dr. Narinder Kaur Multani**
- 2. Designation** : **Professor**
- 3. Department** : **Physiotherapy**
- 4. Date of Birth** : **02-08-1966**
- 5. Address for Correspondence** : **227-Urban Estate, Phase-III**
Patiala-147002



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Photograph

- 6 Areas of Specialisation** : **Sports Physiotherapy**
Osteoarthritis
Geriatric Physiotherapy

7. Academic Qualifications:

- B.P.T. from M. S. Uni. Baroda, 1988
- M.S.P.T. from GNDU Amritsar, 1998
- Ph.D. from Punjabi University, Patiala, January 2005

ADDITIONAL QUALIFICATION:

Music Instrumental

Music Vocal

8. Membership of Professional Bodies/Organisations

- i)** Indian Association of Physiotherapists
- ii)** Exercise Fitness and Health Alliance

9. Medals/Awards/Honours/Received

- i)** Jewel of India award 2006 conferred for outstanding contribution in the field of physiotherapy by International Education Society.
- ii)** IAP Chandigarh Branch Oration Award 2010.
- iii)** Dr. N S Yadava Oration Award 2011
- iv)** Award of Honour on Women's Day, 2016 by Kishan Chand Goyal Memorial Charitable Trust & Patiala Social Welfare Society
- v)** Women Physio Legend Award, OMPTCON 2018 at Jamia Millia Islamia, New Delhi on 11th March 2018
- vi)** Significant Contribution Award 2018 in National Seminar at MMIPR, MMU Mullana, Ambala

- vi) Best Paper Award for “Prevalence of Menstrual Disorders and its association with % Body Fat in Athletic and Non Athletic Females of Punjabi University Patiala” in National Physiotherapy Conference on Counteracting Non-communicable Diseases through Physiotherapy, 9-10 March 2018 at Patiala
- vii) Empowered Woman Award 2021 in 4th National Sports Conference at Amritsar

10. Details of Experience:

Clinical/ Administrative/Teaching experience: **33 years**

11. Published Work (Please specify numbers only):

- a. Research Papers
 - i) National = 47
 - ii) International = 26
- b. Books
 - i) “The Principles of Geriatric Physiotherapy”, JAYPEE brothers, Medical Publishers (P) Ltd, New Delhi, ISBN-10. 9788184481051 · ISBN-13. 978-8184481051
 - ii) “Clinical Significance of Electro diagnosis in Disc Herniation”, Lambert Academic Publishing, Saarbrucken, Germany, ISBN-13: 978-3-659-31643-2; ISBN-10: 3659316431
 - iii) “Role of Footwear Alteration and Bracing in Treatment of Osteoarthritis Knee”, 2016, Laxmi Book Publication, Solapur
 - iv) Compiled & Edited Conference Proceedings of National Physiotherapy Conference 2018 “Counteracting Non-communicable Diseases through Physiotherapy” ISBN 978-93-84789-81-7

11. R & D Projects

- i) **Title:** “Impact of Therapeutic Intervention in Patients of Osteoporosis”
Funding Agency: UGC, New Delhi
Date of implementation: 1.5. 2009
Tenure: 3 years
- ii) **Title:** Evaluation of Balance Control and Pattern of Muscle Activation from Functional Perspectives across the Ages
Funding Agency: Science and Engineering Research Board (SERB)
Date of implementation: 19.07.2018
Tenure: 3 years
- ii) Pioneer in getting a grant of **Rs. 83 lacs** under S & T Institutional and Human Capacity building, **DST-FIST** for the Department of Physiotherapy, Punjabi University, Patiala

12. Invited Talks/Articles

i) ARTICLES PUBLISHED:

- Decreasing sex ratio-A departmental survey was published in ‘The Beas’:114-115; 2001-2002.
- Physiotherapy: Historical and Current Panorama in Punjab was published in conference proceedings of 1st Annual Conference of Punjab Branch of Indian Association of Physiotherapists: 3-7; 2002.

- Computing Hazards was published in ‘The Beas’:143-146; 2002-2003.

iii) **Invited lectures or presentations for conferences/ symposia:**

- “Theme Symposium”–(Movement Towards Function), in 45th Annual Conference of Indian Association of Physiotherapists (IAP) held at Kolkata 2-4 February, 2006
- A series of three lectures in UGC sponsored Refresher Course on “Automated Software Development” in The School of Mathematics and Computer Applications of Thapar Institute of Engineering and technology, Patiala on 14th December 2006
- “Fundamentals of Sports Physiotherapy” in Department of Physiotherapy, S. Bhagwan Singh Post Graduate Institute of Biomedical Sciences and Research, Balawala, Dehradun on 23-24 March, 2007
- “Computing Hazards” in Department of Computer Science, Guru Nanak National College, Nakodar (Jalandhar) on 03-09-2007
- One day Seminar on “Geriatric Physiotherapy” in College of Physiotherapy, S.S.G. Hospital, Baroda organized by Indian Association of Physiotherapists, Baroda Branch, 30th March 2008
- A lecture in Refresher Course in Computer Science and Applications organized by the Academic Staff College, Punjabi University, Patiala, on 02-06-2010.
- “Postural strategies: Implications for falls in elderly” in 1st Annual Conference and Scientific Meet of the Indian Association of Physiotherapists Chandigarh Branch, 13-14 November, 2010.
- “Computer Application in Physiotherapy” in UGC sponsored National Seminar on Role of Statistics in Physiotherapy, 25-27 November, 2010 at Jalandhar
- CME on aging, 49th Annual Conference of IAP held at Pune 7-9 January, 2011
- “Prevalence and Predictors of Osteoporosis: A Story Beyond Calcium” in Physiocon Chandigarh, 3rd & 4th December, 2011
- A lecture on “Postural deformities” in Department of Computer Science, Guru Nanak National College, Nakodar (Jalandhar) on 18 October 2014
- A series of three lectures on “Research Tools in Physiotherapy” at Dolphin Institute of Biomedical and Natural Sciences, Dehradun on 10 November, 2014
- “Efficacy of Different Physical Interventions in Rehabilitation of Medial Knee Osteoarthritis” in International Conference and Exhibition on Pain Medicine held on June 08-10, 2015 in Chicago, USA
- Convocation Speech on Annual Day and Convocation Day, 19 December, 2015 at Amar Jyoti Institute of Physiotherapy, Kakardooma, New Delhi
- “Principles of Gerontological Physiotherapy Assessment” in 100th Continuous Professional Development Program: National Level Conference on Geriatric Rehabilitation at KMCH College of Physiotherapy, Coimbtore on 19 November, 2016
- “Current Trends and Scope for Research in Geriatric Rehabilitation” in 100th Continuous Professional Development Program: National Level Conference on Geriatric Rehabilitation at KMCH College of Physiotherapy, Coimbtore on 19 November, 2016
- “Yoga and Women’s Health” In PCOS Awareness Camp at Medilink Hospital, Patiala on 23 September 2018
- “Research Based Understanding of Balance Control” In NEURAXIS 2018 4th International Conference Brain & Spine at IAMR Ghaziabad on 29-30 September 2018

- Delivered Lecture in CME on Role of Rehabilitation in Breast Cancer at Homi Bhabha Cancer Hospital, Sangrur (Unit of Tata Memorial Centre Mumbai) on 3rd August 2019
- One day seminar on “Female Athlete” at Dolphin Institute of Physiotherapy, Dehradun on 04 October, 2019
- "Impact of Aging on Postural sway during Balance Tasks of increasing difficulty" in 26th International Conference on Research in Life Sciences and Healthcare held at Bali, Indonesia on 22-23 December 2019
- “Female Athlete Triad” webinar on 8 August 2020, organized by Rehabilitation Science Group, PRO-SEED, foundation of India
- Sports Webinar On “The Female Athlete Triad” on 7th January 2022 organised by The Sports Authority of Goa
- “Menstrual Dysfunction From A Physiotherapist’s Perspective” during “Women Enclave” on 28th May 2022 at Dolphin Institute of Physiotherapy, Dehradun
- “Innovation and Enterpreneurship in Physiotherapy Education” during 1st International Conference on Advances in Physiotherapy and Rehabilitation (AIPR-2022) themed “Coalescence of Innovation & Enterpreneurship in Physiotherapy & Rehabilitation” 16-17 November 2022 organized by Department of Physiotherapy, Chitkara School of Health Sciences, Chitkara University, Punjab.
- “Women’s Health from a Physiotherapist’s perspective” on 10th June 2023 organised by Women Studies Centre, Punjabi University, Patiala.

Additional Professional Appointments

<ul style="list-style-type: none"> • Chairperson “Prevention of Sexual Harassment of Women at Workplace Cell” from 12.02.2021 to till date
<ul style="list-style-type: none"> • Dean Faculty of Medicine from 21.08.2008 to 20.08.2010
<ul style="list-style-type: none"> • Member Syndicate from 03.08.2009 to 29.06.2010
<ul style="list-style-type: none"> • Member Senate from 30.07.2009 to 29.06.2011
<ul style="list-style-type: none"> • Principal Investigator two major research projects funded by UGC and DST respectively
<ul style="list-style-type: none"> • Member Research Award Committee Faculty of Medicine 9.10.06 to 16.8.2008, 17.08.2012 to 16.08.2014, 01.07.2014 to 01.07.2016
<ul style="list-style-type: none"> • Member Board of studies UG in Physiotherapy from 23.08.2010 to 20.07.2012, 17.09.2012 to 20.07.2014, 13.08.2014 to 20.07.2016, 26.10.2020 to 20.07.2022
<ul style="list-style-type: none"> • Member Board of studies PG in Physiotherapy from 02.07.2012 to 01.07.2014
<ul style="list-style-type: none"> • Member Faculty of Medicine from 05.09.2014 to 16.08.2016,
<ul style="list-style-type: none"> • Started a scholarship for economically weak and admitted on merit a girl student of BPT First Year of physiotherapy department in the memory of my father S. Balbir Singh Multani (Every Year since 2014)
<ul style="list-style-type: none"> • Nominated member for the smooth functioning of the aided and unaided colleges Managing Committees’ under Punjabi University Patiala • Baba Jorawar Singh Fateh Singh Khalsa Girls College Morinda from 26.10.2010 to 25.10.2013 • GovtKirti College NialPatran, Patiala from 2019 to 2021 • Lord Krishna College of Education for Women Vill-Sundra, DeraBassi, Mohali from 2019 to 2022 • Public College Samana, Patiala from 2022 to 2025
<ul style="list-style-type: none"> • Member Board of studies in Physiotherapy nominated by the VC of Gurugram University Gurugram since 09.12.2021

13. Ph.D. Students guided/under guidance (Details) :

S. No.	Name of the Student	Title of Thesis	Year of Completion
1.	Mr. Narkeesh A.	“Clinical Significance of Electrodiagnosis in PIVD as Compared With Radiodiagnosis”	Awarded – 2010
2.	Mr. Aksh Chahal	“Impact of Therapeutic Intervention in Patients of Osteoporosis”	Awarded – 2014
3.	Mr. Jaspreet Singh Vij	“Gait pattern in post stroke hemiplegic patients: analysis and correction”	Awarded – 2014
4.	Mrs. Sonia Singh	“Sensory motor and balance training in aging population: functional outcome”	Awarded – 2014
5.	Mrs. Pragya	“Predicting dynamic abilities in relation with aging”	Awarded – 2014
6.	Mrs. Kanimozhi	“Role of Footwear Alterations and Bracing in the Treatment of Osteoarthritis of Knee”	Awarded – 2015
7.	Bhawna	“Predictors of Shoulder Pain Among Adults in Northern India”	Awarded -2018
8.	Amandeep Singh	“Sonographic Evaluation of Changes induced in Articular Cartilage of Knee by kinetic Chain Exercise”	Awarded -2018

14. List of Papers/Courses taught at P.G. and U.G. Level

S. No.	Paper	Class
1.	Exercise Therapy	UG
2.	Biomechanics	UG
3.	Electro Therapy	UG
4.	Physiotherapy in Medical and Surgical Conditions	UG
5.	Physiotherapy in Orthopaedics	UG
6.	Traumatic Injuries in Athletes	PG
7.	Non-traumatic Medical Conditions of Athletes	PG
8.	Research Tools in	Ph.D.

15. List of Papers Published:

NATIONAL:

1. A Comparative Study of Physical Fitness in Veteran Sports Persons and Non Sports Persons published in Current Researches in Sports Medicine, Edited by N B Shukla, Lanka Publishers, Delhi: 107-124; 1999
2. The changing role of physiotherapists in the management of O.A. Knee has been published in "Physiotherapy" The Journal of The Indian Association of Physiotherapist, 1 (1):15-20; 2005.
3. Research paper entitled "Quadriceps Strength of Patients of Osteoarthritis Knee: In Relationships to pain and Disability was published in the Journal of Exercise Science and Physiotherapy ISSN 0973-2020, 1(1 & 2): 38-45; 2005.
4. A healthy body composition program for the patients of osteoarthritis knee was published in the journal of Indian Association of Sports Scientists and Physical Educationists, ISSN 0971-0140, 14 (1 & 2): 75-89; 2005.
5. To investigate the effectiveness of telemedicine services integrated into physiotherapeutic health care system has been published in the Journal of Exercise Science and Physiotherapy ISSN 0973-2020, 2: 87-91; 2006.
6. Comparison of caudal and anteroposterior glide mobilization for the improvement of abduction range of motion has been published in the Journal of Exercise Science and Physiotherapy ISSN 0973-2020, 2: 59-65; 2006.
7. A psychometric analysis of patient satisfaction with physical therapy care has been published in "Physiotherapy" The Journal of The Indian Association of Physiotherapists, ISSN 0973-6549, 2 (2): 21-27; 2006.
8. Efficacy of neural mobilisation in sciatica published in the Journal of Exercise Science and Physiotherapy ISSN 0973-2020, 3 (2): 136-141; 2007.
9. Development & Validation of Geriatric Assessment Tools: A preliminary report from Indian Population is published in the Journal of Exercise Science and Physiotherapy ISSN 0973-2020, 3 (2):103-110; 2007.
10. Changes in MNCV due to different mechanical compressive forces to the proximal region of limb in normal human subjects published in Journal of Exercise Science and Physiotherapy ISSN 0973-2020, 3 (2);165-167; 2007.
11. Effect of moderate intensity aerobic exercise training on coronary artery disease (CAD) risk factors in grade-1 hypertensive patients published in Physiotherapy The Journal of The Indian Association of Physiotherapists, 4-9; 2009.
12. Cover Story - The Phenomenon of Ageing: A Physiotherapist's Perspective published in Physiotimes, ISSN 0976-1993, 4-10: 2010
13. A study of risk factors: comparison between osteoporosis and osteopenia in the district of Patiala published in Journal of Exercise Science and Physiotherapy ISSN 0973-2020, 6 (1): 50-56; 2010.
14. Comparison of breathing exercises and aerobic exercise in asthmatic children published in Journal of Exercise Science and Physiotherapy ISSN 0973-2020, 6 (2): 112-119; 2010
15. Computer Application in Physiotherapy – My Current Perspective published in Conference Proceedings, UGC sponsored National Seminar on Role of Statistics in Physiotherapy, 25-27 November, 2010 at Jalandhar

16. Determination of Optimal Grip Force with Minimal Discomfort for Various Positions of Ulnar Deviation with Constant Extension published in Conference Proceedings, UGC sponsored National Seminar on Role of Statistics in Physiotherapy, 25-27 November, 2010 at Jalandhar
17. Statistics of Osteoporosis published in Conference Proceedings, UGC sponsored National Seminar on Role of Statistics in Physiotherapy, 25-27 November, 2010 at Jalandhar
18. Use of Unrelated t-test in Physiotherapy published in Conference Proceedings, UGC sponsored National Seminar on Role of Statistics in Physiotherapy, 25-27 November, 2010 at Jalandhar“
19. Statistics of Falls in Elderly published in Conference Proceedings, UGC sponsored National Seminar on Role of Statistics in Physiotherapy, 25-27 November, 2010 at Jalandhar
20. Intrarater and Interrater Reliability of a Foot Type Classification Method published in Conference Proceedings, UGC sponsored National Seminar on Role of Statistics in Physiotherapy, 25-27 November, 2010 at Jalandhar
21. Statistics of Post Stroke Hemiparetic Patients published in Conference Proceedings, UGC sponsored National Seminar on Role of Statistics in Physiotherapy, 25-27 November, 2010 at Jalandhar
22. Correlation between Age, BMI, Joint Space and VAS in Osteoarthritis Knee published in Conference Proceedings, UGC sponsored National Seminar on Role of Statistics in Physiotherapy, 25-27 November, 2010 at Jalandhar
23. Are we neglecting foot type in our routine assessment of mechanical pain? published in Physiotimes, ISSN 0976-1993, 10-12; 2011
24. Influence of Age on Lung Function Tests published in Journal of Exercise Science and Physiotherapy ISSN 0973-2020, 8(1):1-7; 2012
25. Efficacy of Neuro-Development Therapy Based Gait Training in Correction of Gait Pattern of Post Stroke Hemiparetic Patients published in Journal of Exercise Science and Physiotherapy ISSN 0973-2020, 8 (1):30-38; 2012
26. Role of Physiotherapy In Knee Osteoarthritis in Physiotherapy In Health Care Need And The Reality, ISBN: 978-81-302-1033-7, 85-91, Publication Bureau, Punjabi University Patiala, 2012
27. Role of Physiotherapy In Tennis Elbow In Health Care Need And The Reality, ISBN: 978-81-302-1033-7, 127-131, Publication Bureau, Punjabi University Patiala, 2012
28. Technique of Chest Physiotherapy In Health Care Need And The Reality, ISBN: 978-81-302-1033-7, 162-164, Publication Bureau, Punjabi University Patiala, 2012
29. Extended Role of Physiotherapy In Emergency Department In Health Care Need And The Reality, ISBN: 978-81-302-1033-7, 213-218, Publication Bureau, Punjabi University Patiala, 2012
30. Comparative study of the age related structural changes in the knee between sportspersons and non sportspersons published in Journal of Exercise Science and Physiotherapy ISSN 0973-2020, 9 (1):23-30; 2013
31. Effect of Dorsiflexor Muscle Strengthening Using Russian Currents on Balance and Function in Elderly published in Human Biology Review ISSN 2277 4424, 2 (2):176-184; 2013
32. Quantitative Analysis of Gait Parameters in Post Stroke Hemiparetic Patients in Journal of The Indian Academy of Geriatrics 9 (2):56-61; 2013
33. Role of Footwear Alteration along with Conventional Physiotherapy in Osteoarthritis Knee published in Journal of Exercise Science and Physiotherapy ISSN 0973-2020, 10 (2): 122-130; 2014

34. Relationship of Dynamic balance with lower extremity muscular strength and endurance in Football Players. Indian Journal of Research. ISSN- 2250-1991, 06(11); 2017
35. Can measurement of Blood Pressure and Heart Rate among different Postural Positions predict Cardiovascular Fitness? published in Conference Proceedings, National Physiotherapy Conference 2018 “Counteracting Non-communicable Diseases through Physiotherapy” ISBN 978-93-84789-81-7, 26-30
36. Cardiovascular Endurance Assessment and Comparison among Players from Different Sports published in Conference Proceedings, National Physiotherapy Conference 2018 “Counteracting Non-communicable Diseases through Physiotherapy” ISBN 978-93-84789-81-7, 31-34
37. Effectiveness of Chest Physiotherapy and Other Airways Clearing Techniques in Patients with Cystic Fibrosis - A Review published in Conference Proceedings, National Physiotherapy Conference 2018 “Counteracting Non-communicable Diseases through Physiotherapy” ISBN 978-93-84789-81-7, 40-43
38. Impact of Age and knee pain on articular cartilage of knee evaluated using Sonography published in Conference Proceedings, National Physiotherapy Conference 2018 “Counteracting Non-communicable Diseases through Physiotherapy” ISBN 978-93-84789-81-7, 44-47
39. Impact of Walking in Patients of Osteoporosis published in Conference Proceedings, National Physiotherapy Conference 2018 “Counteracting Non-communicable Diseases through Physiotherapy” ISBN 978-93-84789-81-7, 63-65
40. Prevalence of Low Back Pain among Clergymen in Gurudwara Sahib, Patiala published in Conference Proceedings, National Physiotherapy Conference 2018 “Counteracting Non-communicable Diseases through Physiotherapy” ISBN 978-93-84789-81-7, 66-69
41. Effect of Insoles in OA Knee: Review Study published in Conference Proceedings, National Physiotherapy Conference 2018 “Counteracting Non-communicable Diseases through Physiotherapy” ISBN 978-93-84789-81-7, 70-74
42. Prevalence of Menstrual Disorders and its association with % Body Fat in Athletic and Non Athletic Females of Punjabi University Patiala published in Conference Proceedings, National Physiotherapy Conference 2018 “Counteracting Non-communicable Diseases through Physiotherapy” ISBN 978-93-84789-81-7, 75-79
43. Prevalence of Urinary Incontinence amongst Punjabi University Female Players published in Conference Proceedings, National Physiotherapy Conference 2018 “Counteracting Non-communicable Diseases through Physiotherapy” ISBN 978-93-84789-81-7, 84-87
44. Primary Dysmenorrhoea: The Study of Prevalence along with Risk Factors and Efficacy of Exercise Program published in Conference Proceedings, National Physiotherapy Conference 2018 “Counteracting Non-communicable Diseases through Physiotherapy” ISBN 978-93-84789-81-7, 88-91
45. Metabolic Syndrome and Musculoskeletal Pain published in Conference Proceedings, National Physiotherapy Conference 2018 “Counteracting Non-communicable Diseases through Physiotherapy” ISBN 978-93-84789-81-7, 135-138
46. Musculoskeletal manifestations in Diabetes Mellitus published in Conference Proceedings, National Physiotherapy Conference 2018 “Counteracting Non-communicable Diseases through Physiotherapy” ISBN 978-93-84789-81-7, 145-149

47. A study on injury prevalence and pattern of injuries among velodrome cycling players, *Comparative Exercise Physiology*, 2022; ISSN 1755-2540 print, ISSN 1755-2559 online, DOI 10.3920/CEP220019; Article in Press

INTERNATIONAL:

1. Effects of Quadriceps Strength Training on Progression of Osteoarthritis Knee was published in the book of abstracts 4th International Conference on Strength Training, Aristotle University of Thessaloniki, Greece: 215-217; 2004.
2. Clinical significance of soleus H-reflex in lumbar radiculopathy in Indian adults published in *International Journal of Physical Therapy (IJOPT)* 1(1); 31-35; 2007.
3. Clinical Significance of electrodiagnosis in L5-S1 disc herniation in *Physiotherapy & Occupational Therapy Journal - An International Journal*, ISSN 0974-5777, Oct.-Dec. 1(2); 99-106; 2008.
4. Effect of Aging on components of neurophysiological balance control in Conference proceedings, *World Physical Therapy 2011*, from 20-23 June 2011 at Amsterdam, Netherlands; es284-es285
5. Predictors of Bone Mineral Density in Patients of Osteoporosis, *World Physical Therapy 2011*, from 20-23 June 2011 at Amsterdam, Netherlands; es873-es874
6. Impact of aging on anthropometry, architecture and function of quadriceps, *World Physical Therapy 2011*, from 20-23 June 2011 at Amsterdam, Netherlands; es872-873
7. Relationships amongst gait speed, balance and lower extremity muscle strength in elderly, *World Physical Therapy 2011*, from 20-23 June 2011 at Amsterdam, Netherlands; es825
8. Effectiveness of Plyometric Training in the Improvement of Sports Specific Skill of Basketball Players in *Indian Journal of Physiotherapy and Occupational Therapy - An International Journal*, ISSN P - 0973-5666, ISSN E - 0973-5674, Jan.-March. 6(1); 77-82; 2012
9. Relationship of Foot Characteristics on Balance with Ageing in *Indian Journal of Physiotherapy and Occupational Therapy - An International Journal*, ISSN P - 0973-5666, ISSN E - 0973-5674, Jan.-March. 6(1); 107-111; 2012
10. Impact of Sporting Activities on Bone Mineral Density in *Physical Therapy Research & Practice*, ISSN No: 2348-18, Oct-Dec 1(1); 45-54; 2013
11. Level of Physical Fitness Among Physiotherapy Students A Study of Punjab and Haryana in *World Applied Sciences Journal*, ISSN 1818-4952, 21(8); 1136-1140, 2013
12. Investigating the Physiological Changes in the Cardiovascular System Across Ages 25 to 75 Years in *Indian Journal of Physiotherapy and Occupational Therapy - An International Journal*, ISSN P - 0973-5666, ISSN E - 0973-5674, Jan.-March. 8(1); 123-128; 2014
13. Observational Study on Foot Pressure Distribution in Young and Adults in *International Journal of Physiotherapy and Research*, ISSN 2321-1822, 2(4);648-52; 2014
14. NDT Based Gait Training as compared to lower limb strengthening in correction of Gait Pattern of Post-stroke Hemiparetic patients in *World Confederation for Physical therapy Congress 2015*, 1-4 May, Singapore.
15. Relationship among lower extremity biomechanical alignment and balance abilities in community dwelling older adults in *World Confederation for Physical therapy Congress 2015*, 1-4 May, Singapore.

16. Prevalence of Shoulder pain among adults in Northern India. Asian Journal of Health and Medical Research (AJHMR). ISSN: 2455-4332, June 2(2); 18-22; 2016
17. Shoulder muscle strength in adults with and without shoulder pain. International Journal of Physiotherapy and Research. ISSN 2321-1822, 4(4); 1616-21; 2016
18. Impact of Therapeutic Interventions in Patients of Osteoporosis. Indian Journal of Physiotherapy and Occupational Therapy - An International Journal, ISSN P - 0973-5666, ISSN E - 0973-5674., 10 (2): 61-65; April-June 2016
19. Shoulder Diagnosis Patterns in Patients Reporting Shoulder Pain. International Journal of Therapies & Rehabilitation Research, E-ISSN 2278-0343, 5(5): 1157-160; 2016
20. Association of menstrual function with bone mineral density amongst Punjabi University Female Athletes. International Journal of Physiotherapy. ISSN: 2348-8336, 4(4); 21-216; 2017.
21. Effect of age, cartilage health and pain on the isometric strength of knee musculature: a cross sectional study. International Journal of Physiotherapy and Research. ISSN 2321-1822, 5(6); 2515-20; 2017.
22. Predictors of Shoulder pain. Published in International Journal of Advanced Science and Technology. ISSN: 2005-4238 (Print), ISSN: 2207-6360 (Online), 29(3s); 1813-1825; March 2020
23. Evaluation of Balance Control and Patterns of Muscle Activation from Functional Perspectives Across the Ages- An Observational Study Protocol. Published in Indian Journal of Public Health Research & Development an International Journal. ISSN-0976-5506 (electronic). 11(03); 595-599; 2020
24. Database Recognition/Journal Indexing Services for Physical Therapist published in Indian Journal of Public Health Research & Development an International Journal. ISSN-0976-5506 (electronic). 11(05); 14-18; May 2020
25. Electromyography Based Analysis of the Impact of Ageing on Muscle Activation Pattern during Static and Dynamic Balance Control Tasks: A Systematic Review. Asian Pacific Journal of Health Sciences, e-ISSN: 2349-0659 p-ISSN; 2350-0964 9 (3); 71-75; July-September, 2022
26. A Comparative Study on Balance After Conservative and Reconstructive ACL Rehabilitation in Young Adults: A Survey Study. International Journal of Health Sciences and Research, ISSN: 2249-9571; 13(3), DOI: <https://doi.org/10.52403/ijhsr.20230327>; March 2023

Date: __/__/____

(Signature of the Teacher)