



Proceedings of

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# PHYSICAL PHYSICAL REHABILITATION AND SPORTS MEDICINE

March 07-08, 2022 I Webinar

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# CONTENTS

| SI.No | Name                | Title of Talks   | Page No |
|-------|---------------------|--|---------|
| 1     | Colin Waldock       | Physiotherapists as prescribers of medicine  | 5       |
| 2     | Dr. Roopa Desai     | Immediate effect of Whole-Body Vibration Training on EMG activity of Intrinsic foot muscles in young adults with flexible flat Feet  | 7       |
| 3     | Rujuta Hetal Naik   | Attitude and knowledge of physiotherapy students towards mental health and patients with psychiatric illnesses-an observational study  | 8       |
| 4     | Ruqia Begum         | Effects of Handgrip Training with and without Blood Flow Restriction in relation to Gender among young healthy adults  | 9       |
| 5     | Tim Tsui            | An approach encouraging children to participate in sports  | 10      |
| 6     | Dr. Ashu Sharma     | Relationship between bmi and pefr among female paramedical students in vadodara, gujarat, india  | 11      |
| 7     | Varje-Riin Tuulik   | The correlation between muscle tissue properties (frequency, stiffness) measured by the myotonometry on m. trapezius and m. erector spinae before and after the balneological procedures | 12      |
| 8     | Oltiana Petri       | Prevalence of Low Back Pain in Health Care Workers   | 13      |
| 9     | Alexandru Mazareanu | "Myofascial Low Back Pain management after disc herniation using Dry Needeling and Electrotherapy  | 14      |
| 10    | Vitor Alves Marques | Mental health of women in the third and fourth cycle of chemotherapeutic treatment with apparently healthy women   | 15      |
| 11    | Sonali Joshi        | Association of medial longitudinal arch with ability and function of foot among recreational runners: A Cross-sectional study  | 17      |
| 12    | Diksha              | Impact of core stability on dynamic balance among boxing players: a correlational study  | 18      |
| 13    | Isha Garg           | Power index as a parameter of running speed among asymptomatic young adults: A Cross-sectional study   | 19      |
| 14    | Priya Maurya        | Impact of endurance training regime on VO2max of Basketball players: A Quasiexperimental study   | 20      |



# PHYSICAL PHYSICAL REHABILITATION AND SPORTS MEDICINE

March 07-08, 2022 | Webinar

**KEYNOTE SPEAKER** 



# PHYSIOTHERAPY, PHYSICAL REHABILITATION AND SPORTS MEDICINE

March 07-08, 2022 | Webinar



**Colin Waldock**Dr Trudy Thomas, Dr Julie Macinnes

# Physiotherapists as prescribers of medicine

hysiotherapists have been able to undertake education to become prescribers of medicines since 2006 as supplementary prescribers and 2012 as independent prescribers. Despite this the number of prescribers remains low. Research on role identity of physiotherapists is limited, with even less looking at the impact of prescribing medication on what it means to be a physiotherapist. It is hoped that understanding what happens to physiotherapists when they become prescribers will help in determining how well prescribing fits with the profession. This paper comprises part of a project investigating the impact on role identity on physiotherapists of undertaking prescribing training. The study utilised the Constructivist Grounded Theory method with interviews undertaken with three principle stakeholder groups to investigate viewpoints on what it means to be a physiotherapist and the impact of undertaking training to become a prescriber. Interviews were transcribed verbatim with content analysed using the method of constant comparison with initial and subsequent focussed coding of interview content. Coding of interview content was supported by reflective memo writing of the codes developed across the stakeholder groups. Interpretive analysis led to the development of a conceptual framework, suggesting what happens when physiotherapists undertake prescribing training with major influencing factors being a dynamic interplay between forces acting on the categories of evolving identity and imaging of physiotherapy. Evolving identity consists of coping with frustrations, crossing boundaries across professions, responding to populations needs leading to role development, which is impacted by influences that promote imaging of physiotherapy by physiotherapists themselves and by potential users and fellow professionals.

**Keywords:** physiotherapists, medicines, prescribing, role identity, change

# **Biography:**

Colin has been a Physiotherapist Independent/Supplementary Prescriber since 2006. He was a physiotherapist for over 30 years within the NHS specialising in the management of musculoskeletal pain. His is currently a member of the post graduate team at Medway School of Pharmacy which enjoys a unique collaboration with both the Universities of Kent and Greenwich where he teaches prescribing to an interprofessional group of students. His main area of interest is role identity, and change that occurs subsequent to undertaking learning of new skills.



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SPEAKER PRESENTATIONS



# PHYSIOTHERAPY, PHYSICAL REHABILITATION AND SPORTS MEDICINE

March 07-08, 2022 | Webinar

# Immediate effect of Whole-Body Vibration Training on EMG activity of Intrinsic foot muscles in young adults with flexible flat Feet

### Dr.Roopa Desai, Dr.Manisha Rathi, Dr.Tushar Palekar, Dr.Batul Kothawala

Dr.D.Y.Patil College of Physiotherapy, Dr.D.Y.Patil Vidyapeeth, Pune, India

**Background:** Whole-body vibration training is emerging as a popular exercise tool in rehabilitation of musculoskeletal conditions. However, the immediate effect of whole-body vibration training is still under various researches.

**Objectives:** To investigate the immediate effect of a single session of whole-body vibration (WBV) on medial longitudinal arch in young adult with Flexible flatfeet

Methods: An experimental study was conducted among asymptomatic 25 young adults aged 18-35 years with unilateral or bilateral flexible flatfeet. The participants were randomly allocated to control or experimental groups. Control group (n=12) performed conventional short foot exercises on land and the experimental group (n=13) performed short foot exercises on the whole-body vibration machine. A single 12 minutes session was conducted for both the groups. The outcome measures used to assess immediate effect of training were Navicular drop test (NDT), Surface EMG of muscle abductor hallucis (sEMG) taken at pre intervention and immediately post intervention. Results: There was improvement in both groups with significant decrease in Navicular drop and significant increase in electromyographic activity in abductor hallucis (p<0.05). In between group comparison, short foot exercise on Whole body vibration showed significant decrease in navicular drop and also significant increase in electromyographic activity of Abductor Hallucis. (p<0.05). Conclusion: These results suggest that immediate effect Whole body vibration training for intrinsic foot muscle using short foot exercise is more effective than conventional short foot exercise on land. Further studies can be conducted to examine the long-term effects of Short foot Exercises on Whole Body Vibration.

**Keywords:** Navicular Drop Test; Surface EMG; Short foot exercises.

# **Biography:**

Dr. Roopa Desai is Associate Professor at Dr. D. Y. Patil College of Physiotherapy, Dr. D. Y. Patil Vidyapeeth, Pune, Maharashtra. She holds a Master's degree in Physiotherapy from University of Pune, Maharashtra. She is perceiving Ph.D. at Dr. D.Y. Patil Vidyapeeth, Pune. She has 20 years of professional experience and 13 years of academic experience in the field of Physiotherapy with wide experience in teaching Physiotherapy subjects at under graduate and Post-graduate level. She has many research papers to her credit. She has 7 Papers/posters presented in conferences. Her area of interest includes Research, Management of Spine conditions.



# PHYSIOTHERAPY, PHYSICAL REHABILITATION AND SPORTS MEDICINE

March 07-08, 2022 | Webinar

# ATTITUDE AND KNOWLEDGE OF PHYSIOTHERAPY STUDENTS TOWARDS MENTAL HEALTH AND PATIENTS WITH PSYCHIATRIC ILLNESSES-AN OBSERVATIONAL STUDY

### Rujuta Hetal Naik

Vadodara, Gujarat, India

tigma towards people with psychiatric disorders hinders their care and rehabilitation. Mental Health is a least explored field by physiotherapists. However, they usually encounter patients with psychiatric illnesses secondary to other longstanding diseases. There are variety of physiotherapy treatment options available for mental illness. It is important to explore knowledge and attitude of future therapists towards psychiatric illnesses and mental health to ensure optimum care to such patients. Hence, we aimed to question the attitude and knowledge of physiotherapy students towards mental health and patients with psychiatric illnesses and identify the barriers faced by them. In this observational study, 191 Physiotherapy students were assessed using Mental Illness Clinicians Attitude version 4 and pre validated questionnaire for attitude and knowledge respectively. Both self-reported questionnaires along with two open ended questions were filled online by them. Data was analysed using the SPSS software. Correlation of Attitude and Knowledge was done using Spearman's coefficient of rank correlation. Majority of students had moderately positive attitude with little room of improvement (57.07%) followed by 40.31 % having a negative attitude. Good knowledge was found in 59.69% students followed by 22.51% students having moderate and 14.14% excellent knowledge. It was observed that there is a negative significant correlation between attitude and knowledge (r= -0.369, p<0.001). Gender, year of study and age has a considerable impact on one's knowledge and attitude. This study concludes that knowledge and attitude is negatively correlated indicating the need to make them understand their role in rehabilitation of patients with psychiatric disorders. This study also derives that positive attitude and good amount of knowledge has nothing to do with the type of experience had by students.

Keywords: Attitude, Knowledge, Mental Health, MICA-4, Physiotherapy, Psychiatric Illness

# **Biography:**

Physiotherapist at Dr. Pravin Patel's Innovative Hospital and Research Center. Curious physiotherapist trying to develop the field and bring innovation to it. Offer holder at University of Nottingham, United Kingdom for MScPT in Neuromusculoskeletal, commencing in September 2022. Currently, consultant physiotherapist at an alternative/innovative medicine center.



# PHYSIOTHERAPY, PHYSICAL REHABILITATION AND SPORTS MEDICINE

March 07-08, 2022 | Webinar

Effects of Handgrip Training with and without Blood Flow Restriction in relation to Gender among young healthy adults

Ruqia Begum, Co-Authors Arva Naeem, Shoaib Kiyani , Furqan Ahmed Siddiqi, Wardah Ajaz Qazi, Nida Mushtaq Kiani,

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uscle weeknes occurs in a variety of conditions and pathologies. Blood flow restriction training is a suucesfull means in improving muscle strength. The purpose of the current study ws to determine the effects of handgrip training with and without blood flow restriction among young healthy adults. This randomized control trial was conducted at Foundation University Institute of Rehabilitation Sciences Islamabad from May 2020-Dec 2020. Young healthy adults with age 20-40 years were included in the study. A total seventy five approached cases only fifty six participants met the inclusion criteria. Participants were randomly divided in to two groups; experimental Group (A) and control group (B).Both groups received low intensity strength training while experimental group received blood flow restriction training in addition. Hydraulic Hand Held Dynamometer and anthropometric measuring tap were used for outcome measurement. Data was analysed by using SPSS.21. Mean Age of study participants was 27.07±5.96. There was a significant improvement in hand grip strength in experimental group as compared to control group with p value was<0.05. In terms of forearm circumference the P value was < 0.05 in experimental group as compared to control group. Low intensity strength training along with blood flow restriction brings better outcomes in terms of hand grip strength via hydraulic hand held dynamometer and forearm circumference as compared to low intensity strength training without blood flow restriction. There is no gender wise significant difference in low intensity hand grip strength training with and without blood flow restriction.

**Keywords:** Strength training; hand strength; muscle strength dynamometer; blood flow restriction.

## **Biography:**

Physiotherapist, Doctor of physical Therapy, Master in Manual Physical Therapy, Research Intrest, Muscuoskeltal, Neuromuscular Physical Therapy)



# PHYSIOTHERAPY, PHYSICAL REHABILITATION AND SPORTS MEDICINE

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# An approach encouraging children to participate in sports

### Tim Tsui

The Education University of Hong Kong, Hong Kong

Teaching Games for Understanding (TGfU) approach was developed by some researchers at Loughborough University in the UK to tap into children's inherent desire to play (Ophea, 2014). TGfU advocated using thematic approach to teaching games rather than teaching specific sport units, and students would gain the skill to apply to different sports by playing a variety of games associated with 4 game categories; target games, net games, strike and field games, and territory games. These categories represented games and activities that are similar in structure. By exposing students to the primary rules, fundamental skills, and tactical problems associated with each category, they become literate in a variety of games, activities and sports and develop an understanding and competency of the skills and tactics associated with playing sports. One of the ultimate goal of having physical education as a compulsory subject in the education curriculum is to promote lifelong healthy, active living for all. The beauty of TGfU is allowed students to have all the common skills and they could perform in their favorable sports. Students could have longer exercise and physical active durations, while without the absence of learning the correct skills and techniques. Ultimately, to develop a healthier lifestyle and more willingly to participate in sports.

**Keywords:** Teaching Games Understanding; Teaching; Physical Education; Primary Education; Sports; Health

# **Biography:**

Tim is a chartered physiotherapist who is eligible to practice in the UK and Hong Kong. He is also a qualified primary school PE teacher. Besides physiotherapy and PE education, Tim holds BSc & MSc in exercise sciences, and a postgraduate diploma in Public Health as well. He is currently working for a private company as a health consultant, where he can enjoy researching, teaching, and delivering messages about exercise and health to everyone.



# PHYSIOTHERAPY, PHYSICAL REHABILITATION AND SPORTS MEDICINE

March 07-08, 2022 | Webinar

# RELATIONSHIP BETWEEN BMI AND PEFR AMONG FEMALE PARAMEDICAL STUDENTS IN VADODARA, GUJARAT, INDIA

### Dr. Ashu Sharma

Pioneer Medical Campus, Vadodara, Gujarat, India

osing or gaining excessive weight have a gamut of effects on pulmonary function tests, small airway dysfunction and expiratory flow limitation. This study is carried out to find relationship with BMI. A prospective cross sectional observational study with convenient sampling of 100 female students with age group of 18-22 years was conducted. The respective height and weight was taken and BMI was calculated. The sample were further divided in Normal, Underweight, Over weight and Obese individual. For PEFR readings, Deep breath was taken, nostrils were closed quickly, tightly with fingers and breath was blown out into the mouth pieces of PULMO PEAK FLOW METER. Every participant has performed thrice and readings were recorded. Thus, co relation between BMI and PEFR was calculated. Statistical Analysis using Graph pad prism 6 was used for 100 participants. Descriptive statistics with mean values of age -19.36, BMI- 21.32 and PEFR- 296.9 were calculated. R value of -0.037 stated co relation between BMI and PEFR. The level of significance such as P value, t value of each group were respectively calculated. There is significant relation between BMI and PEFR with P value <0.001 but no significant relation in obese group with P value 1.386. Negative relation is observed between BMI and PEFR. Body weight of a student has an effect on lung function and in turn PEFR.

# **Biography:**

Dr. Ashu Sharma, a Neuro Physiotherapist has done Masters level specialization from Sumandeep Vidhyapeeth, Vadodara, where she used to go for house visits to treat elderly patients and emergency hospital as well. She has done Bachelors from Pioneer Medical Campus. after graduation she was engrossed in YOGA and has Yoga Certification Course. Adjunct to that she has never left clinical visits for patients. Interested in Industrial visits also and ergonomics of the working people. A video from I online doctor app was uploaded in Youtube the exercises for desk job employees. After the completion of masters degree, she was appointed as Assistant Professor in Neotech Technical campus, gained management skills, institutional and focused on educational excellence. She is always eager to upgrade her knowledgw by keeping in mind 1 motto- Sky is the limit.



# PHYSIOTHERAPY, PHYSICAL REHABILITATION AND SPORTS MEDICINE

March 07-08, 2022 | Webinar

The correlation between muscle tissue properties (frequency, stiffness) measured by the myotonometry on *m. trapezius and m. erector spinae* before and after the balneological procedures

### Varje-Riin Tuulik <sup>1,2</sup>, Alar Veraksitš <sup>3</sup>, Monika Kumm <sup>1,4</sup>, Viiu Tuulik <sup>1</sup>

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ost influenced regions by musculoskeletal overuse are low back, neck and shoulders in human body. A natural way to normalize muscle tone is balneotherapy (BT) with mineral water or mineral water and mud bath. To objectify the results of such an intervention myotonometer was used. There is not enough data about the correlation analysis of biomechanical parameters between different body regions. The aim was to measure how muscle stiffness and frequency correlates in neck-shoulder and lower back regions before and after the BT intervention. The participants were 64 persons, aged 18-65 years, with muscle pain score of 2-5/10 on the Visual Analogue Scale. Muscle biomechanical properties, frequency and stiffness, were measured using a Myoton-3. A myotonometer percussion end records the tissue's natural oscillation as frequency and stiffness, what characterizes the muscle resistance to impact. Muscle properties were measured before and five days after BT on the right and left m. erector spinae and m. trapezius in lying position. Spearman Rank Order Correlation analysis were used to analyze the correlation between these two regions. The BT interventions to affect muscle biomechanical properties were mineral water or mud and mineral water bathes 5 times during two weeks. The temperature of the baths is 41-43 °C and the temperature of a mineral water bath is 37-39 °C. Before BT correlations between biomechanical parameters of m. trapezius and m. erector spinae appeared in frequency (p=0.09) and in stiffness (p=0.01). After the BT interventions the correlation still exist (frequency p=0.09, stiffness p=0.03). There are correlations between muscle biomechanical properties of neck-shoulder and lower back regions as well before and after the BT.

**Keywords:** muscle tone, stiffness, frequency, balneological, overuse syndromes

## **Biography:**

Varje-Riin Tuulik has a scientific career in Tallinn University Haapsalu College with special intrest in balneology and musculosceletal overuse in working age people.



# PHYSIOTHERAPY, PHYSICAL REHABILITATION AND SPORTS MEDICINE

March 07-08, 2022 | Webinar

### Prevalence of Low Back Pain in Health Care Workers

Oltiana Petri<sup>1</sup>; Erjona Abazaj<sup>2</sup> Irena Kola<sup>2</sup>; Sandër Kola<sup>3</sup>

Sport University of Tirana, Albania

**Introduction:** Low Back Pain (LBP) has become a growing common symptom and a major health concern in public health across the developed and developing countries. For the health worker is it the most leading causes of disease burden and the most disabling factor in the workplace. The study aimed is to determine the prevalence and associated factors of low back pain among professions of health care workers.

**Methods:** A total of 129 participants (58.14%female, 41.86% male) among healthcare workers that working in the tertiary University Medical Center of Tirana "Mother Teresa" were involved to evaluate LBP for ten months (from Mars 2021 until to December 2021). Nordic standardized questionnaire was used to collect information from our study participants regarding the LBP symptoms and epidemiological risk factor data.

Results: Prevalence of LBP in healthcare workers was determined to be 75.2 % (97/129). Female resulted to be 2.9 times in risk to have LBP compared to male for CI 95% [1.8-4.5] p value < 0.001. The average age resulted to be 34±5.9, where the minimum and maximum age were 24 and 57 years old respectively. The participants more than ≥40 years old were 11 times in high risk for LBP compared to other age groups for CI 95% [5.9-21.6] p value <0.0001. Regarding the profession of health workers, nurses presented the higher percentage compared to other profession (52.7%) p value =0.02. There were found a significant association related to low back pain and some of risk factor such as job position, working condition, long standing and long sitting at desk, health status and also the physical activity. In all those factors were demonstrated an association and p value resulted less than 0.05.

**Conclusion:** The finding of this study demonstrated a high prevalence of LBP among healthcare workers especially the nurses. Female were the most predominant gender. More of risk factors demonstrated a high risk of low back pain among the health care workers.

Keywords: Prevalence, LBP, health care workers, risk factors

## **Biography:**

Oltiana Petri completed her university studies at the "Faculty of Medicine", Tirana in the branch "General Medicine" in the period 1994-2000. Oltiana has completed postgraduate studies (Specialization) in laboratory science branch "Microbiology" at the "University Hospital Center", "Mother Teresa" Tirana in the period 2003-2006.

In the period 2010-2016 she completed the professional studies in the field of "Food Safety" and wins the scientific degree "Doctor of Medical Sciences" awarded by the University of Tirana, Faculty of Medicine, and Department of Laboratories. After 15 years of experience at the "Institute of Public Health", the Faculty of Medicine, the Faculty of Dentistry, the Faculty of Nursing and the Faculty of Public Health, Dr. Oltiana joined the academic staff as a full-time Lecturer at the Faculty of Rehabilitation Sciences, part of UST. The current position she holds is Head of the "Department of Biomedical and Human Disciplines" at FSHR.

Oltiana has continuously attended specializations and trainings both inside and abroad such as England, Scotland, Germany, Greece, Italy, Croatia, etc. trying to update her professional knowledge. Oltiana's current research interest is the correlation of Public Health with Sports physiology and pathology. Dr.Oltiana has been for years, an active member of several Albanian Balkans and Europe Professional Associations. She has very good knowledge of English and Greek and good knowledge of Italian language.



# PHYSIOTHERAPY, PHYSICAL REHABILITATION AND SPORTS MEDICINE

March 07-08, 2022 | Webinar

# Myofascial Low Back Pain management after disc herniation using Dry Needeling and Electrotherapy

### Alexandru MAZAREANU<sup>1</sup>, Alin PARASCHIV<sup>2</sup>

<sup>1</sup>Dry Needling Romania, Bucharest, Romania.

<sup>2</sup>National University of Physical Education and Sports, Bucharest, Romania

<sup>2</sup>CDT Provita. Bucharest, Romania?.

Ithough disc herniation management has significally improved over years, pain in the lower back Aafter spinal procedures and intervention is still one of the main aspects that physical therapists need to treat as a priority so that the patient can regain independence and return to daily living activities. Studies shows that in non specific low back pain is to be found trigger points in muscles from the lumbosacral area. It is important for the specialist to proper evaluate those muscles and to treat the active trigger points. Nowdays there are plenty ways to manage pain, therapy has many forms and application but usually trigger points are treated using myofascial techniques, manual therapy, massage and electrotherapy. In the present paper we would like to compare the outcomes related to patient's pain level using Dry Needeling therapy and electrotherapy in a complex rehabilitation program together with physical therapy and manual therapy. We assume that using DN, patients will have higher mobility scores, lower pain level and will return to physical activity faster than patients who will use electrotherapy. The question of this research will be if pain management more efficient using Dry Needeling technique than than electrotherapy? We will evaluate the patients before and after the therapy using pain pressure threshold device, Vas scale for pain, active mobility tests and Questionnaires. There will be two groups, both having 20 participants, first one will use DN, physiotherapy and manual therapy and the other one will use Electrotherapy, physiotherapy and manual therapy.

**Keywords:** disc herniation, low back pain, dry needeling, myofascial pain, rehabilitation, trigger points.

# **Biography:**

Alexandru Mazareanu is a physiotherapist and osteopath from Romania and practices in Bucharest.

He is an International Dry Needling Instructor at David G. Simons Academy and the founder of Dry Needling Romania, organisation focusing on teaching and research. He is now studing a Pg. Cert in Diagnostics MSKUS at East London University.

Alin Nicolae PARASCHIV PhD student and assistent at National University of Physical Education and Sports Bucharest, and Physiotherapist at Provita Medical Center Bucharest romania.



# PHYSIOTHERAPY, PHYSICAL REHABILITATION AND SPORTS MEDICINE

March 07-08, 2022 | Webinar

Mental health of women in the third and fourth cycle of chemotherapeutic treatment with apparently healthy women

Vitor Marques<sup>1</sup>, Rafael Alves<sup>1</sup>, Rafael Felipe Moraes<sup>1</sup> Thaynã Guimarães<sup>1</sup>, Weder Silva<sup>1</sup>, Claudio Lira<sup>1</sup>, Mario Hebling<sup>1</sup>, João Ferreira-Junior<sup>2</sup>, Paulo Gentil<sup>1</sup>, Maria Sebastiana Silva<sup>1</sup> Carlos Vieira<sup>1</sup>

<sup>1</sup>Federal University of Goias, UFG, Brazil.

he number of studies involving patients with breast cancer and physical activity has increased in recent years. However, it is still unclear the effects of quality of life during chemotherapy. To compare quality of life between women with breast cancer who are in the third to fourth cycle of chemotherapy treatment with apparently healthy women. Methods: This study is a cross-sectional study. The 37 women included in the study were divided into two groups: breast cancer treatment (TCM, n = 19) and apparently healthy (CNT, n = 18) and had 52.2  $\pm$  13 , 11 years and 55.8  $\pm$  8.37 years, respectively. Quality of life was evaluated using the SF-36 questionnaire. The final score can vary between 0 (worse general health) and 100 (better health status). The SF-36 questionnaire consists of 8 domains: General Health Status, Vitality, Pain, Emotional Aspects, Social Aspects, Mental Health, Functional Capacity and Physical Limitations. Data normality was verified by the Shapiro-Wilk test, and the data were compared between groups by Student's t test. For independent samples, the significance level adopted was p <0.05. Cohen's d-effect size was calculated from the difference in quality of life between groups to examine the magnitude of the effect of breast cancer treatment on the investigated variables. The results show that women who were undergoing chemotherapy had worse levels of quality of life in the Physical Limitations domains (p. = 0.002), Social Aspects (p = 0.003), Emotional Aspects (p = 0.0003,). Results show that chemotherapy treatment negatively influences quality of life levels

**Keywords:** breast cancer; Psychobiological aspects; chemotherapy treatment; physical exercise.

## **Biography:**

Vitor Alves Marques is physical education by profession, is master in Health Science at the Federal University of Goias, and its dissertation is about the effects of chemotherapy treatment on muscle performance in women with breast cancer in the year 2018. He is member the Laboratory of Physiology of the Exercise and Nutrition and Healthy at the Federal University of Goias (LAFINS/UFG) and is member the Laboratory of Analyzes of Human Movimento (LAMOVH/UFG). He has approved abstract in ACSM's 66th Annual Meeting, with the theme muscle performance in women during chemotherapy treatment with breast cancer.

<sup>&</sup>lt;sup>2</sup>Federal Institute of Minas Gerais, Rio Pombas, Brazil



# PHYSICAL PHYSICAL REHABILITATION AND SPORTS MEDICINE

March 07-08, 2022 | Webinar

SPEAKER PRESENTATIONS



# PHYSIOTHERAPY, PHYSICAL REHABILITATION AND SPORTS MEDICINE

March 07-08, 2022 | Webinar

Association of medial longitudinal arch with ability and function of foot among recreational runners: A Cross-sectional study

### Sonali Joshi<sup>1</sup>, Aksh Chahal<sup>2</sup>

Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation, Haryana, India

Running is one of the most common form of physical activity practised by individuals across the globe. While foot turns out to a play vital role in the performance of runners. Subsequently, foot complex disposes a significant amount of contribution in sustaining balance, gait and with holding the posture to a great extent. Consequently, any slight to big variation in the structure of foot shall result in considerable orthopaedic conditions. However, research is lacking so as to specify if any alteration in medial longitudinal arch structure affect the ability and function of foot or not. Twenty-five recreational runners aged between 18 to 30 years were taken from sports complex of Maharishi Markandeshwar, Mullana-Ambala, Haryana. Their arch height index (AHI) was calculated using arch height measurement system followed by foot and ankle ability measure questionnaire filling including 21-item ADL subscale and 8-item sports subscale. The data elicited was analysed and resulted in a positive correlation of AHI with ADL (r= 0.64, p= <0.001) sports subscale (r= 0.54, p= <0.001). Our result suggest that AHI of both of foot is associated with ADL and sports subscale with having a significant affect on ability and function of the foot.

**Keywords:** Running, Runners, Exercise, Gait, foot, Arch height

# **Biography:**

Currently, Dr. Sonali Joshi is a MPT student in Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation. Currently working with National Karate Federation (NKF) of India. While working towards her goal, she has registered two copyrights as intellectual part of her work



# PHYSIOTHERAPY, PHYSICAL REHABILITATION AND SPORTS MEDICINE

March 07-08, 2022 | Webinar

# Impact of core stability on dynamic balance among boxing players: a correlational study

### Diksha<sup>1</sup>, Aksh Chahal<sup>2</sup>

Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation, Haryana, India

Poxing is one of the ancient fighting sports. While punching play a vital role in boxing, and it necessitates core muscular strength and stability. Core plays crucial role in establishing stability and generating force to perform an activity. In present time core training programme have become popular in fitness and sports. Core instability is related to poor performance in athletes. The purpose of our present study is firstly to look for relationship between core stability on dynamic balance and finally, how much impact does core stability have on performance among boxing players. It shall provide rationale for players to focus on the stability for their core to enhance their sports performance. On the basis inclusion criteria 25 amateur boxing players of age 18-25 years were selected. Demographic details and anthropometric measurements were taken after that double leg lowering test and star excursion balance test was used to measure core stability and dynamic balance. The data elicited was analysed and resulted in a weak positive correlation of dynamic balance with core stability for right PM direction (r=0.252, p=.047), right PL direction (r=0.301, p=0.022) and left PL direction (r=0.266, p-=0.038). Result of our study indicating weak positive correlation between core stability and dynamic balance among boxing players.

Keywords: Athletes, Abdominal Muscles, Athletic Performance, Boxing, Diaphragm, Physical Fitness

# **Biography:**

Currently, Dr. Diksha is a MPT student in Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation. Currently pursuing master's degree in sports physiotherapy. While working towards her goal, she has registered one copyrights as intellectual part of her work



# PHYSIOTHERAPY, PHYSICAL REHABILITATION AND SPORTS MEDICINE

March 07-08, 2022 | Webinar

# Power index as a parameter of running speed among asymptomatic young adults: A Cross-sectional study

### Isha Garg<sup>1</sup>, Aksh Chahal<sup>2</sup>

Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation, Haryana, India

Physical fitness is an indicator of cardio-metabolic health profile and predictor of risk for various chronic diseases. Speed is an important motor skill that influences the physical status of an individual, which is determined by anatomical and physiological factors. Leg power index is one of the indicator from physiological parameters of the body that is relevant to distinguish the capacity and performance of young adults. The purpose of this study was to identify the relationship between leg power index and running speed. The anthropometric measurements (height, weight, Body Mass Index), power index (single leg sit to stand test) and running speed (40-yard sprint test) of asymptomatic young adults (age 19.48 +/-1.1) were measured. Data analysis was executed by using Spearman correlation test. The correlation between anthropometric measurements and running speed were not significant. Correlation between leg power index and running speed. Thus, the better performance and physical well-being of asymptomatic young adults.

Keywords: Motor skill, Physical fitness, Power, Performance, Running speed, Young adults

## **Biography:**

Currently, Dr. Isha Garg is a student of Masters in Physiotherapy, speciality in Sports Injuries at Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation (MMIPR), Maharishi Markandeshwar (Deemed to be University), Mullana-Ambala. Currently, working with WUSHU players for their rehabilitation. While working towards her goal, she has registered a copyright as intellectual part of work.



# PHYSIOTHERAPY, PHYSICAL REHABILITATION AND SPORTS MEDICINE

March 07-08, 2022 | Webinar

Impact of endurance training regime on VO2max of Basketball players: A Quasi-experimental study

## Priya Maurya<sup>1</sup>, Aksh Chahal<sup>2</sup>

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Indurance training shall play an important role in improving the oxygen carrying capacities in the lungs, thus improve the VO2max and overall performance. Basketball players' performance is heavily reliant on endurance training. The goal of the study was to use a short-term exercise programme to improve basketball players' endurance training. Endurance training aids in the maintenance of a high level of oxygen consumption during play. The current study focused on determining the effect of endurance training in basketball players because there was a lack of evidence stating that it helps to improve player performance. 15 people between the ages of 18 and 25 were chosen based on the inclusion criteria. There will be an anthropometric measurement taken. The Cooper test was used to determine VO2 max. The players were given a two-week endurance training programme. Prior to the start of the trial and thereafter, the participants' VO2max was measured. Basketball players experienced a significant increase in VO2max after training (p<0.001), which increased their endurance. Conclusion: These findings point to the possible importance of endurance training in increasing players' overall performance, as well as the role of endurance training in improving players' oxygen consumption.

**Keywords:** basketball, endurance training, oxygen consumption, physical endurance

### **Biography:**

Currently, Dr. Priya Maurya is a MPT student in Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation (MMIPR). Currently working with basketball and football players for there rehabilitation. Past work-Worked as a Physiotherapist in state football camp, and part of women's football league. While working towards her goal she has registered a copyright as intellectual part of work



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