# RENEWED VISION

KSP NEWSLETTER, ISSUE 2, 2022

A KENYA SOCIETY OF PHYSIOTHERAPISTS (KSP) PUBLICATION





# WORLD PHYSIOTHERAPY DAY

**THE KENYA SOCIETY OF PHYSIOTHERAPISTS**
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## 2022 Kenya Society of Physiotherapists (KSP) Calendar of Events.

In line with WHO and MOH goal of provision of Universal Health Care (UHC) by competent healthcare workers with optimal skill mix, KSP wishes to provide knowledge and skill improvement opportunities for physiotherapists across Kenya.

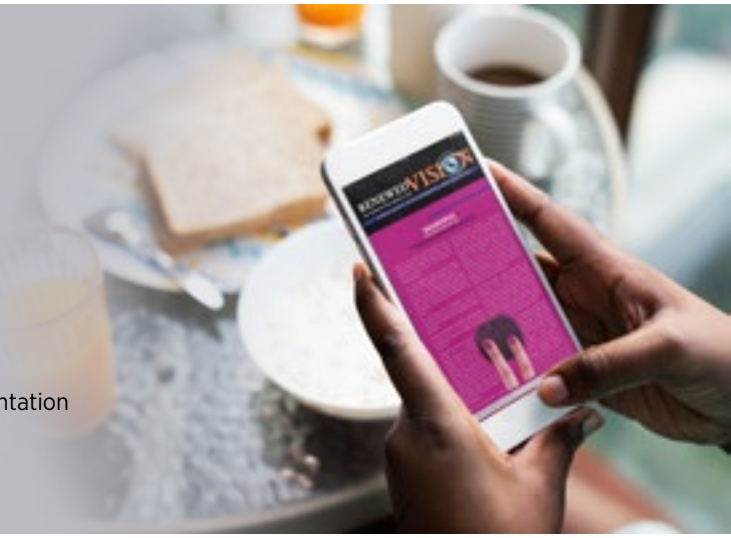
For KSP to achieve this goal, the society is organizing for enhancement of Physiotherapy guidelines, reporting tools and conferences where members meet to discuss and get updates in practice of Physiotherapy both in theory and practical sessions. The goal of the conferences is to strengthen the capabilities of the physiotherapists to support the UHC coverage by its members.

The following is the current schedule of events for Year 2022 and fees. The fees listed are inclusive of conference and meals and exclusive of accommodation and transportation.

| YEAR 2022 | ACTIVITIES | VENUE | TOPIC | PROPOSED CONFERENCE FEES |
|---|---|---|---|---|
| May, 2022 | Eastern African Regional Conference World Physiotherapy Africa Scientific Conference (Kenya, Uganda, Tanzania, Rwanda and Burundi) | Mombasa, Kenya | Multiple Topics | Ksh. 20,000 |
| July 27TH, 28th and 29th 2022 | Leadership And Governance Training | Naivasha | Leadership Training | Ksh. 20,000 |
| September 2022 1 DAY | World PT Day and Social Action Events | Multiple Regions | World Physiotherapy Day | No Charge |
| October 6th and 7th 2022 | National Guidelines, SOPs, Reporting Tools and Registers | Nairobi | | Ksh. 10,000 |
| December 8th and 9th 2022 | National Scientific Conference and AGM And National Elections | TBD | Annual General Meeting | KSH 10,000 |


### In this Issue:

- Enterpreneurship
- Research
- Pelvic Health
- Concussion in contact sports
- Ergonomics
- Ethics in practice
- Lymphoedema
- Spinal Cord Injury
- Medical records and documentation
- Physical activity and exercise post-Covid 19 related illness



# KENYA SOCIETY OF PHYSIOTHERAPISTS

## MISSION

To work towards the development of national health by: representing the kenya physiotherapy profession nationally and internationally; promoting high standards of physiotherapy education, practice and research; supporting communication and exchange of information among its members and the general public; and collaborating with other international and national professional organizations.

## VISION

The vision of the KSP is to be a leading Society in the enhancement of training, regulation, promotion and welfare of its members and deliverance of quality physiotherapy service to its client.

## STRATEGIC GOALS

- Foster strategic alliances and collaboration with external stakeholders.
- Recruit, mentor and retain members.
- Enhance public awareness of physiotherapy services and promote growth.
- Promote advocacy in government policies.
- Advance the science of physiotherapy practice.

## CORE VALUES

- Professionalism
- Collaboration
- Democracy in good governance
- Accountability and prudence in the use of resources.
- Integrity.
- Diversity.
- Learning and growing

## SERVICES

- Women Health Therapy
- Geriatrics Rehabilitation
- Orthopedic Manual Therapy
- Pediatrics Rehabilitation
- Neuro Rehabilitation
- Oncology/Lymphoedema Therapy

## COMMITTEE

**MR. HENRY OPONDO, CHAIRMAN**

**MR. CONSTANTINE MUKHALE, VICE CHAIRMAN**

**DR. CATHERINE WAMBUA, SECRETARY GENERAL**

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## LETTER FROM THE EDITOR

**Dear Reader,**

A warm welcome to our Second Issue of the Renewed Vision Newsletter. This Issue comes at time when the world in general and the physiotherapists Society are going through a recovery and rebuilding phase after disruption by the global pandemic. As we come together to recover what was lost, we must commend the efforts and sacrifices undertaken by members physiotherapy clinicians, researchers, educators, and students for adapting to the new normal, remaining steadfast to their duty and continuing to offer care and guidance during the most difficult times.

This year, key areas including cultural transformation, ethics in practice, record keeping and research amongst other pertinent discussions are coming to the fore in this Issue. Universal Health Care is the key agenda for the Ministry of Health and World Health Organization and we have come up with a robust schedule of trainings which will be instrumental to meet the requirement to provide universal Healthcare by competent health workers with optimal skill mix. This will aid to strengthen the capabilities of the physiotherapists to support UHC coverage by its members.

Victoria Musyoka

## WORD FROM THE CHAIRPERSON

**Dear Members,**

It is a pleasure to engage you in yet another edition of our annual newsletter.

KSP is a member welfare body for all Physiotherapy stakeholders, duly registered under the Societies Act (Cap. 108, Section 2158) and an affiliate member of the world governing body for Physiotherapists, The World Physiotherapy.

As a member society we must continue to come together to build structures for longevity as we also endeavor to rebuild after a disruptive period of the Covid 19 pandemic. Of note is the theme for the World PT Day observed last year, which was to generate awareness about the crucial contribution physiotherapists make to society, enabling people to be mobile, well, and independent. The theme has not escaped far from the 2020 theme “Long COVID and Rehabilitation” vs. “Rehabilitation and COVID-19”. KSP leadership with the great support of PCK and other key stakeholders has continued to offer trainings relevant to this year’s theme majoring on culture transformation. Culture transformation requires changing the hearts, minds, and skills of the workforce to support the desired culture. Individuals must first have the conviction (heart) to change their behaviour.

In this period, we got a new constitution for KSP and a National Rehabilitation Strategy for the MOH. These are some of the key documents that are helpful in providing basic structures for us to deliver on our mandate.

It is our pleasure that many of you have and continue to offer immense contribution in the PT profession. As we each play a role in nurturing a younger upcoming generation of PT professionals, our conviction remains that a cultural transformation will ensure longterm sustainable contributions in the profession.

**Henry Opondo**
KSP Chairpeson


# IN PHYSIOTHERAPY

By **Julius Nyaga**
Former KSP Chairperson
and CEO Mulligan Rehab Services

## INTRODUCTION

Every society and professional organization is governed by a set of rules and principles designed to help individuals conduct their activities honestly and with integrity. The principles offer guidelines on how individuals are to approach inevitable problems and professional dilemmas whenever they come across them.

The principles are based on the organization's core values, and the standards to which the organization is viewed by the public.

Physiotherapists are required by their professional body to understand their Ethics and Code of conduct to enable them navigate the current world where the society has become a well-informed digital public that is more advanced, enlightened, and complex than a few decades ago, consequently more litigatious as well.

The principles are fundamental in offering recommendations to practicing individuals, those in education institutions, researchers, entrepreneurs in physiotherapy and the heads of various physiotherapy organizations.

## Ethics and Code of Conduct

Ethics refer to a set of principles that influence member ***judgment*** while Code of Conduct are set of guidelines that influence member ***actions***.

These principles are based on values and morals by which an organization and its members make decisions on what is right or wrong in arriving at appropriate behavior and action they take in specific situations

## What are Ethics?

The following responses are the most frequent when most individuals are asked what Ethics mean,

- What my feelings tell me is right or wrong.
- What my religious beliefs subscribe to
- What the law of the land requires.
- The standards of behavior our society accepts.
- I don't know what the word means.

From the above replies, it is important to note that one's feelings, religious beliefs, state law and societies will always be diverse. They may not therefore form a valid and firm Ethics as they will be dynamic from religion to religion, state to state and from society to society.

## Ethics are Two Things.

1. A well-founded standard of right and wrong that advocates for what people ought to do, in terms of: - rights, obligations, benefits to society, fairness and specific virtues.
2. Study and development of one's moral standards. Our own moral beliefs our moral conduct, striving to ensure that we and the institutions we work in live up to the standards that are reasonable and solid-based

## Importance of Ethics

Ethics in physiotherapy offer standards of behavior and performance that form the basis of professional accountability to the public and colleagues.

They define the principles of physiotherapy practice in patient management, consultation, and education research and facility administration.

They form the guidance for physiotherapists and other physiotherapy practitioners facing ethical challenges, regardless of their professional roles and responsibilities.

They educate physiotherapists, students, health professionals, regulators, and the public regarding the core values, ethical principles, and standards that guide the professional conduct of the physiotherapists.

**Seven Core Values for Physiotherapists**

Accountability
Altruism (selflessness)
Compassion/caring
Excellence
Integrity
Professional duty
Social responsibility.

## Physiotherapy Roles that Build Ethics

There are fundamental physiotherapy roles that build physiotherapy ethics. The roles serve as the scope of the profession and touch on every aspect and of physiotherapy.

The roles include, patient management at the clinical level on daily basis, professional consultation in all aspects and scope of practice from staff training, facility design, equipment requirement and capacity building among physiotherapists. Physiotherapy education both basic and post basic education, clinical research, and administration.

Central to the Code of Ethics is the special obligation for physiotherapists to Empower, Educate, and enable those with impairments, activity limitations, participation restrictions, disabilities, and to facilitate greater independence, health, wellness, and enhanced quality of life to individuals regardless of race, religion, and nationality.

These roles are assimilated in the development of the Ethics and code of conduct as they are the operational areas for physiotherapists.

## Principles of Physiotherapists

The core values for the basis for the principles.

**Principle #1**:

**Physiotherapists shall respect the inherent dignity and rights of all individuals.**

- Physiotherapists shall act in a respectful manner toward each person regardless of their age, gender, religion, race or nationality.
- Physiotherapists shall recognize their personal biases and shall not discriminate against others in the course of their physiotherapy practice, consultation, education, research and administration.

**Principle #2:**

**Physiotherapists shall be trustworthy and compassionate in addressing the rights and needs of patients/clients/ colleagues.**

- Physiotherapists shall adhere to the core values of the profession and shall act in the best interests of patients/clients over theirs.
- Physiotherapists shall provide physiotherapy services with compassionate and caring behaviors that incorporate the individual and cultural differences of patients/ clients.
- Physiotherapists shall provide information necessary to allow patients or their families to make informed decisions about physiotherapy care or participation in clinical research.
- Physiotherapists shall collaborate with patients/clients to empower them in decisions making about their healthcare. Needs.
- Physiotherapists shall protect confidential patient/ client information and may disclose confidential information to appropriate authorities only when allowed or as required by law.

**Principle #3:**

**Physiotherapists shall be accountable for making sound professional judgments.**

- Physiotherapists shall demonstrate independent and objective professional judgment in the patient's/clients' best interest in all practice settings.
- Physiotherapists shall demonstrate professional judgment informed by professional standards, evidence (including current literature and established best practice), practitioner experience, and patient/ client values.
- Physiotherapists shall make judgments within their scope of practice and level of expertise and shall communicate with, collaborate with, and refer to peers or other health care professionals when necessary.
- Physiotherapists shall provide appropriate direction of and communication with other physiotherapists and support personnel in a dignified manner.

**Principle #4:**

**Physiotherapists shall demonstrate integrity in their relationships with patients/clients, families, colleagues, students, research participants, other health care providers, employers, payers, and the public.**

- Physiotherapists shall provide truthful, accurate, and relevant information and shall not make misleading representations.
- Physiotherapists shall not exploit persons over whom they have supervisory, evaluative or other authority (e g, patients/clients, students, supervisees, research participants, or employees).
- Physiotherapists shall discourage misconduct by health care professionals and report illegal or unethical acts to the relevant authority, when appropriate.
- Physiotherapists shall report suspected cases of abuse involving children or vulnerable adults to the appropriate authority, subject to law.
- Physiotherapists shall not engage in any sexual relationship with any of

their patients/clients, supervisees, or students.

- Physiotherapists shall not harass anyone verbally, physically, emotionally, digitally, or sexually.

**Principle #5:**

**Physiotherapists shall fulfill their legal and professional obligations.**

- Physiotherapists shall comply with applicable local, national, county laws and regulations.
- Physiotherapists shall have primary responsibility for supervision of physiotherapy students and support personnel.
- Physiotherapists involved in research shall abide by accepted standards governing protection of research participants.
- Physiotherapists who have knowledge that a colleague is unable to perform their professional responsibilities with reasonable skill and safety shall report this information to the appropriate authority.
- Physiotherapists shall encourage colleagues with physical, psychological, or substance -related impairments that may adversely impact their professional responsibilities to seek assistance or counsel.

**Principle #6:**

**Physiotherapists shall enhance their expertise through lifelong acquisition and refinement of knowledge, skills, abilities, and professional behaviors.**

- Physiotherapists shall achieve and maintain professional competence.
- Physiotherapists shall take responsibility for their professional development based on critical self- assessment and reflection on changes in physiotherapists practice, education, health care delivery, and technology.
- Physiotherapists shall evaluate the strength of evidence and applicability of content presented during professional development activities before integrating the content or techniques into practice.

**Principle #7:**

**Physiotherapists shall promote organizational behaviors and business practices that benefit patients/clients, colleagues and the society they live in.**

- Physiotherapists shall promote practice environments that support autonomous and accountable professional judgments.
- Physiotherapists shall seek remuneration as is deserved and reasonable for physiotherapists' services
- Physiotherapists shall not accept gifts or other considerations that influence or give an appearance of influencing their professional judgment.
- Physiotherapists shall be aware of charges and shall ensure that documentation and coding for physiotherapy services accurately reflect the nature and extent of the services provided.

**Principle #8:**

**Physiotherapists shall participate in efforts to meet the health needs of people locally, nationally, and globally.**

- Physiotherapists shall provide probono physiotherapy services and support organizations that meet the health needs of people who are economically disadvantaged, medically uninsured, and underinsured.
- Physiotherapists shall educate members of the public about the benefits of physiotherapy and the distinctive role of physiotherapists.

In summary, ethics is broader in its nature, outlining what is acceptable for the organization in terms of integrity and how it operates, while a code of conduct is more focused in nature and instructs how members of the organization should act daily and in specific situations.

Ethics sets out an organization's ethical guidelines and best practices to follow for honesty, integrity, and professionalism.

Members of an organization violating ethics can result in sanctions including termination from the organization.

I wish to acknowledge the following Physiotherapy bodies whose documents were critical in the compilation of this document and who have been in the forefront of greatly uplifting the standards of physiotherapy education, practice and growth.

The write up has been compiled through the use of the Canadian Physiotherapy Association Code of Ethics, The Australian Physiotherapy Association, The American Physiotherapy Association-APTA, and the New Zealand Physiotherapy Association.

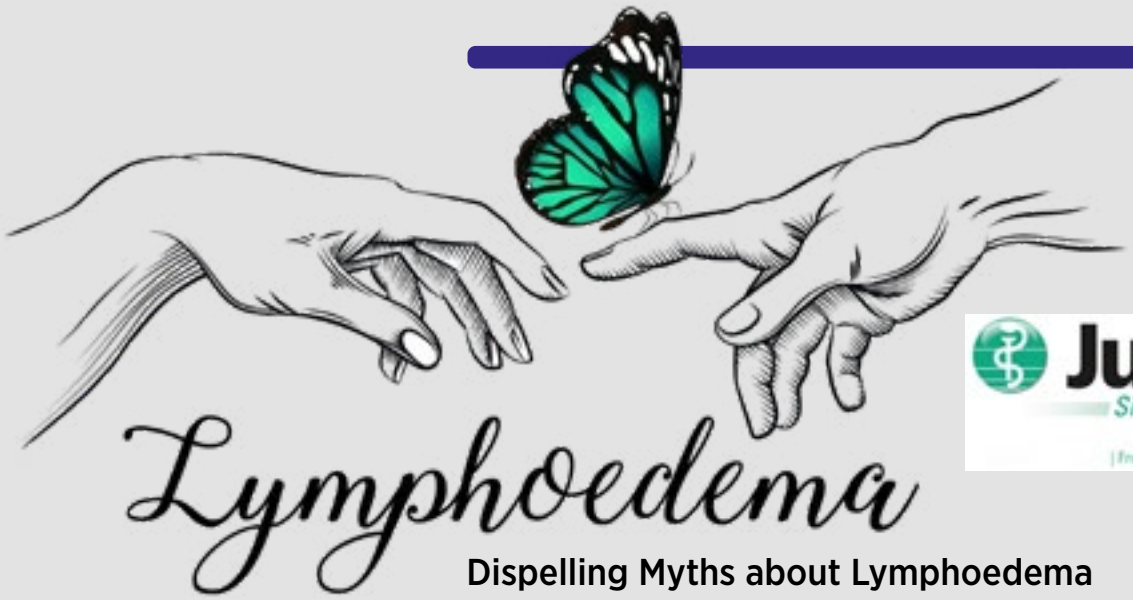
## Reference

**American Physical Therapy Association: https://www.apta.org**

**Australian Physiotherapy Association: https://australian.physio**

**Canadian Physiotherapy Association https://physiotherapy.ca**

**Physiotherapy board of New Zealand: https://www.physioboard.org.nz/standards**



# Lymphoedema

## Dispelling Myths about Lymphoedema

Lymphoedema is accumulation of protein rich fluid known as lymph, in the tissues. It can affect any part of the body but mostly affects the extremities.

It occurs due to malfunctioning of the lymphatic system and is classified into Primary lymphoedema or Secondary lymphoedema

### Primary Lymphoedema

This is genetic related due to dysplasia, hyperplasia or hardening of lymph nodes. It can occur at birth, puberty or after age of 35yrs.

### Secondary Lymphoedema

This occurs as a result of surgery, after cancer treatment, Cerebral Visual Impairment CVI , renal failure, tumor etc.

As is common with many ailments, there are several myths surrounding lymphoedema and it is important to burst them.

1. **Lymphoedema is untreatable**

   Lymphoedema can be treated and managed depending on the stage.

   If a patient is on stage 1 or early stage 2, it is reversible and the patient can lead a normal life.

   This can be achieved through complete decongestive therapy.

   If the patient is in late stage 2, and stage 3, which is elephantiasis, then treatment is aimed at reducing the swelling, decreasing pain, increasing range of movement and improving quality of life. It is possible to reduce the lymphedema to stage 1 and lead a better life.

2. **Lymphoedema is a result of witchcraft.**

   Lymphoedema occurs due to malfunctioning of the lymphatic system and can be genetic or due to interference with the lymphatic system.

   If it is genetic, it can affect the whole family hence the misconception of witchcraft.

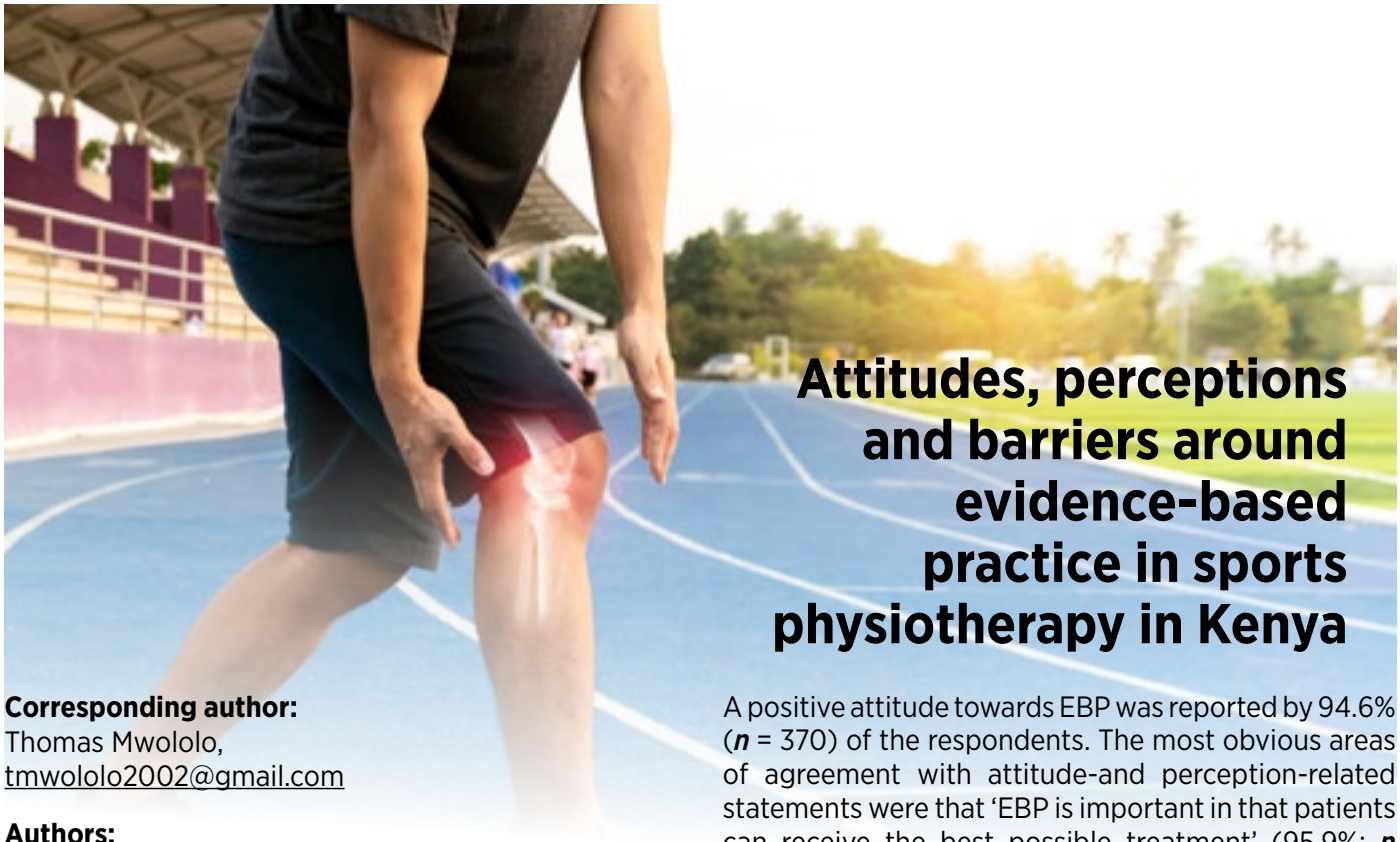
3. **If you don't develop lymphoedema within the first 5 years after mastectomy or cancer treatment, you will never develop.**

   While the probability of developing lymphoedema immediately after cancer treatment is high, it is important to know that this can also develop even after 20 years of having undergone treatment. This is because the lymphatic system function is unique to an individual's body system and there are other predisposing factors such as deep massage, carrying heavy weights, attending saunas and steam baths which can increase the probability of developing lymphedema even after many years.

4. **Avoid drinking a lot of water if you have lymphoedema**

   Contrary to this common belief, dehydration is one of the most common causse of lymphatic congestion. Drinking 6-8 glasses of water as recommended encourages a healthy lymphatic system.

By **Vicky Choi**
Physiotherapist/ Certified Lymphoedema Therapist



# Attitudes, perceptions and barriers around evidence-based practice in sports physiotherapy in Kenya

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**ABSTRACT**

**Background:** Healthcare practitioners are required to integrate clinical experience with the best research evidence for the benefit of the patient.

**Objective:** Determine the attitudes, perceptions and barriers regarding evidence-based practice (EBP) in sports physiotherapy in Kenya.

**Method:** A quantitative crosssectional study was conducted among licensed physiotherapists in the Republic of Kenya through a self-administered questionnaire. Associations between selected sociodemographic characteristics (gender, age, training, experience, specialisation) and attitudes, perceptions and barriers were determined using a Chi-square test.

**Results:** A 55.9% (***n*** = 391) response rate was recorded. A positive attitude towards EBP was reported by 94.6% (***n*** = 370) of the respondents. The most obvious areas of agreement with attitude-and perception-related statements were that 'EBP is important in that patients can receive the best possible treatment' (95.9%; ***n*** = 375), and that it is important that 'evidencebased guidelines related to work exist' (84.6%; ***n*** = 331). There were no significant associations between the demographic characteristics (gender ***p*** = 0.104 [***X***2 = 2.638;1]; age ***p*** = 0.495 [***X***2 = 2.393;3]; training ***p*** = 0.590 [***X***2 = 4.644;6]; experience ***p*** = 0.980 [***X***2 = 0.426;4] and specialisation ***p*** = 0.649 [***X***2= 0.207;1]); and attitudes and perceptions regarding EBP. Insufficient time was highlighted by 57.8% (***n*** = 226) of the respondents as one of the 'most important barriers.

**Conclusion:** Although physiotherapists presented with strong positive attitudes towards EBP in sports physiotherapy, barriers were identified which could hinder the implementation of EBP in sports physiotherapy.

**Clinical implications:** Barriers to applying EBP in sports physiotherapy may lead to inferior quality of care for athletes while addressing these barriers is crucial

**Keywords:** evidence-based practice; standards; sports physiotherapy; Kenya; attitude; perceptions, EBP.

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# GENERAL GUIDE ON PHYSICAL ACTIVITY AND EXERCISE POST COVID – 19 RELATED ILLNESS

In some instances, Covid 19 has been known to lead to prolonged periods of time in the hospital or being ill. This can result in significant reduction of muscle strength and endurance. Exercise is important for regaining your muscle strength and endurance, but this needs to be safe and managed alongside other Covid 19 symptoms.

You might experience worsening of fatigue and other symptoms (described as crashing or relapse) with minimal exertion. This is described in scientific terms as post exertional malaise, or PEM for short. The worsening typically is felt hours or days after physical or mental exertion. Recovery normally takes 24 hours or longer and can affect your energy levels, concentration, sleep, memory and cause muscle / joint pains and flu like symptoms.

If you experience PEM, you need to avoid exercise and activities that can cause PEM and aim to conserve energy. Some of the energy conservation techniques are pacing, prioritize and plan. Pacing is a strategy that helps you avoid crashing and to manage your activities without aggravating your symptoms. Prioritize, when your energy levels are low, you may need to make sure that the energy you use is spent on the activities that are most important to you.

Plan, when planning your day or week spread your activities out rather than trying to fit them all in one day, if possible.

If you don't experience PEM, you can gradually increase your level of activity or exercise to improve your fitness levels. You could use Borg Rating of perceived exertion (RPE) category ratio CR-10 scale as a rough guide to gradually increasing your activity level. This scale is subjective assessment of how hard you feel you're working on a scale from 0 (no exertion at all) to 10 (maximum exertion).

The same exercise will have different RPE scores in different people or at different times. For example you may score slow walking at RPE 1 (extremely light) but this may be scored as 4 (somewhat hard) by another person, or by you on a different day. You can write down your daily activities and their RPE scores to monitor your condition and guide you on how you can increase your activity level

**PHASES OF EXERCISE**

You should consider your return to exercise in five phases, the following describe these phases and give suggestions for activities. Stay at each phase for a minimum of seven days before progressing to the next. Drop back a phase if you find it difficult or experience set back in your symptoms. If you experience any red flag symptoms such as chest pain or dizziness, you should stop immediately and not restart your exercise program until you have been seen by a health professional.

**PHASE ONE**

Preparation for return to exercise (your RPE score of 0 – 1)

Some examples: Controlled breathing exercises - this technique will help you to relax and control your breathing, gentle walking, stretching and balance exercises. If your RPE score for any of these is more than 1, do not do them in this phase. Stretching your muscles can be done sitting or standing. Each stretch should be performed gently, and you should hold each one for 15 – 20 seconds.

**PHASE TWO**

Low intensity activity (Your RPE score of 2 – 3)

Examples walking, lighthouse hold/garden tasks. If your RPE score for any of these is more than 3, do not do them in this phase.

If you can tolerate RPE scores of 2 – 3, you can gradually increase the time spent in exercises by 10 – 15 minutes per day. You'll need to spend at least seven days in this phase without crashing (post exertional malaise) before progressing to the next level.

**PHASE THREE**

Moderate intensity activity (Your RPE score of 4 – 5)

Examples: brisk walking, going up and down stairs, jogging, introducing inclines, resistance exercises.

If your RPE score for any of these is more than 5, do not do them in this phase.

Example of strengthening exercises for your arms Bicep curl, wall push off, arm raises to the side.

Example of strengthening exercises for your legs sit to stand, knee strengthening, squats, heel raises.

**PHASE FOUR**

Moderate intensity exercises with coordination and functioning skills (Your RPE score of 5 – 7)

Some examples: running, cycling, swimming and dance classes. If your RPE score for any of these exercises is more than 7, do not do them in this phase.

**PHASE FIVE**

Return to your baseline exercises (Your RPE score of 8 – 10)

You're now able to complete your usual pre Covid – 19 regular exercise/sports/activity regime.

By **Constantine Mukhale**
Physiotherapist,
Mwingi level IV Hospital

# DON'T MAKE ME LAUGH – OOOPS! LEAK!

## Incontinence

By **Nancy Kiteme**
Pelvic Health Specialist

Incontinence is the involuntary loss of /leakage of urine (bladder) or stool (bowel)

**Bladder** can either be stress, urge, mixed or complete incontinence.

- **Stress incontinence** - involuntary loss of urine on effort or physical exertion eg. Cough, sneeze, laugh or sporting activities.
- **Urge incontinence** - this is associated with urgency.
- **Mixed incontinence** - this is associated with urgency and physical exertion.
- **Complete (total) incontinence** - its loss of urine control caused by neurogenic bladder eg. patients with spinal cord injury (nerve damage)
- **Overactive bladder** - sudden urge to urinate that is difficult to control -ideally you are supposed to do void 6-8 times in 24 hours /once every 3-4 hrs.

**Bowel**

This occurs when the rectal pressure exceeds the anal pressure.

- **Passive anal incontinence** - you are unaware of poop exiting the anus.
- **Urge anal incontinence** - you do feel the urge but cannot control it before reaching the bathroom.
- **Fecal seepage** - fecal leakage in the first few hours after a bowel movement.
- **Gas incontinence**

**CAUSES**

- Child birth
- Prior pelvic floor surgery
- Chronic constipation
- Female Genital Mutilation (FGM)
- Cervical cancer
- Age related
- Obesity

**TREATMENT PLAN**

- Patients education on eg. Bladder irritants (certain foods and drinks have been associated with worsening symptoms of urinary frequency, urgency and urge incontinence.
- Pelvic floor exercises – to strengthen muscles around bladder, rectum, anus
- Behavioral intervention - bladder management.

# EFFECTS OF PRESCRIBED PHYSICAL THERAPY EXERCISES ON BLOOD GLUCOSE, METABOLIC AND HbA1C PROFILES IN PRE-DIABETES

## AT MOI TEACHING AND REFERRAL HOSPITAL IN UASIN GISHU COUNTY, KENYA

**East African Medical Journal Vol. 95 No. 10 October 2018**

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EFFECTS OF PRESCRIBED PHYSICAL THERAPY EXERCISES ON BLOOD GLUCOSE, METABOLIC AND HbA1C PROFILES IN PRE-DIABETES AT MOI TEACHING AND REFERRAL HOSPITAL IN UASIN GISHU COUNTY, KENYA

H. M. Muroki, N. Magak, M. G. Owiti and K. Onyango

## ABSTRACT

**Objectives:** To investigate the metabolic parameters of pre-diabetes and to provide evidence of prescribed physical therapy exercises that can be quantified and reproduced.

**Design:** A controlled experimental study

**Setting:** Moi Teaching and Referral Hospital and physical therapy gymnasium of Moi University orthopaedics and rehabilitation department in Uasin Gishu County, Kenya.

**Subjects:** Two comparison groups, Experimental Group (EG) and Control Group (CG) with each group having the same size of subjects (17 each).

**Results:** Exercise reduces Fasting Blood Glucose (FBG) by 5% and 13%, in 6 and 12 weeks, respectively. It also showed High Density Lipoprotein (HDL) were significantly higher in the experimental than in the control group during post-training (z= -3.20.17, p=0.001). On the other hand, the level of Low-Density Lipoprotein (LDL) decreased in the experimental group during both mid-training and post-training period relative to pre-training (z= -2.908.18, p=0.001). There was a significant reduction of HbA1c (of 3%) after six weeks and an even more marked drop (8%) after 12 weeks in EG compared to CG in which there was no drop in HbA1c levels. High correlation was found between FBG and HbA1c(r=0.95). All parameters at pre, mid and post training were not significantly different between males and females.

**Conclusion:** Prescribed Physical Therapy Exercises (PPTE) exerted improvement on FBG, metabolic and HbA1c profiles in pre-diabetes. The knowledge of how much exercise is needed to impact change in disease progression would inform the prescription of exercise by physiotherapists to their clients.

# KSP 2021 YEAR IN FOCUS

## HIGHLIGHTS OF 2021 ACHIEVEMENTS

**1. Passing of the 2021 KSP constitution.**

After a very long and rigorous process that involved drafting constitution amendments involving stakeholders' contributions, legal and world physiotherapy guidance, and oversight. This process took over 18 months to accomplish. In September 2021 the Registrar of Societies approved the new KSP amended constitution subsequently retiring the 1993 constitution.

One important amendment to the constitution is the establishment of standing committees. KSP to establish five (5) committees selected by members and vetted by the NEC.

i. Communication Committee
ii. Education and Professional Development Committee
iii. Research and Clinical Effectiveness Committee (RCEC)
iv. Local Organizing Committee (LOC)
v. Dispute Resolution Committee

**2. Relaunching of an updated KSP website: https://www.physiotherapykenya.com/**

i. The new website is structured in a way to quickly and easily communicate information to the public about physiotherapy services in Kenya. It offers physiotherapy an online presence
ii. Allows the members to be in contact with the professional leaders
iii. It provides a communication tool to the rest of the physiotherapy bodies in the world stage on status of Kenya physiotherapy practice
iv. Allows communication of physiotherapy activities to its members
v. Provides education to the public on health related topics/issues

**3. CPD Activities provided to members in 2021**

**I. Mental health training; January 2021; Presenter: Therapists without Borders**

Therapist from across public and private institution participated in the training which concluded to CPR training and certification of the attendees.

**II. Exercise Categorization and Intention in Rehab; June 10th 2021; Presenter: Shon Hsu**

The course content included: Programming consideration, factors influencing exercise selection, Kinematic and Kinetic breakdown

**III. Introduction to Lymphoedema Management; June 16th 2021, Presenter: Suzy Davey**

a. The course objectives included: Overview of Complete Decongestion Therapy (CDT) Classifications of Lymphoedema and Staging, CDT components, Manual lymph drainage, compression banding, exercise, skin care and long-term compression and self- care
b. Through Physical Therapy Services Company, PTs were also introduced to current cardiopulmonary management equipment's and procedures.
c. Through Juzo Company, PTs were also introduced to current lymphoedema and Venous Thromboembolism (VTE) management solutions including compression garments.

**IV. Pain Neuroscience Education June 28th to 29th 2021 Presenter Dr. Elijah Freeman**

Over 450 PTs attended this course.

This course provided alternative approach to traditional status quo biomedical models, focusing on anatomy, pathoanatomy, and biomechanics that have been shown to have limited efficacy as a stand-alone treatment when helping people understand their pain, especially chronic pain.

**V. Post- Covid Rehabilitation; August 28th and 29th 2021 Presenter Dr. Rich Severin**

This course provided physiotherapists with the most current evidence based physiotherapy assessment and management of patients following COVID infection. Through Physical Therapy Services Company, PTs were also introduced to current cardiopulmonary management equipment and procedures.

**4. World Physiotherapy Day September 8th 2021 Theme: Long Covid and Rehabilitation**

Members present included Physiotherapists from training institutions (JKUAT, AMREF, KMTC); NEC members from Nairobi, Northeastern, South Rift, North Rift, Western, Nyanza, Coast, Eastern, Central; Health facilities including Kenyatta National Hospital, Kenya Institute of Special Education (KISE), Nairobi Hospital, Mater Hospital, Langata Barracks, Kenyatta University Teaching, Referral & Research Hospital (KUTRH), the Aga Khan University Hospital (AKUH), Handicapper International; many private practices in collaboration with Medex E.A, Ottobock, Physical Therapy services, PCK, MOH, Orthodynamics.

**5. Stakeholder involvement: Rehabilitation Services and Assistive Technology Strategy**

**6. Stakeholder involvement: Medical Disability Categorization Guidelines**

# WORLD PHYSIOTHERAPY DAY 2021

"Long Covid and Rehabilitaion"


1. Mr Henry Opondo. KSP Chairperson.
2. Mr Muema LOC Chair
3. Mr Julius Nyaga, Former KSP Chair and CEO Mulligan Rehab Services
4. KSP outgoing Chairs; Dr Nyamongo, Mr Julius Nyaga and Mr Dickson Okumu.
5. KSP Constitution presentation - Mr Muema LOC Chair, Lawyer James Mamboleo, KSP Chair Henry Opondo and Sec Gen Dr Catherine Wambua.
6. Mr Nelson Nyamu, CEO Physical Therapy Services Ltd, Kenya and Mr Banjo, private practice.
7. James Mamboleo, lawyer who drafted and ushered in the 2021 KSP constitution.

# Endurance Training in People with Spinal Cord Injury (SCI).

## Why is it needed, and what does evidence say about it?

The amount of disability in people with SCI differs depending on the level of injury and whether the injury is complete or not. Physical deconditioning though occurs in all people with SCI and can lead to a higher risk of obesity, type two diabetes, osteoporosis, cardiovascular diseases and lipid disorders compared to able bodied people (Hettinga and Andrews, 2008). The decrease in physical function resulting from SCI underpins the sedentary life and lower daily expenditure of energy by people with SCI compared to healthy people (Ginis et al., 2011). This is the cause of a higher fat mass proportion and increased incidence of obesity in people with SCI. The inability to move the lower extremities may also increase the risk of deep venous thrombosis (Phillips et al., 1998). SCI related immobilization can also cause skeletal and muscular structural and metabolic changes (Phillips et al., 1998). Autonomic dysfunction resulting from SCI especially for people with lesions higher in the spine is also associated with conditions that lead to increased cardiovascular risk, like blood pressure abnormalities, variability of heart rate, and a reduced cardiovascular response to exercise (Hettinga and Andrews, 2008). Death rate in people with SCI has been shown to be higher compared to ambulant people (Devillard et al., 2007), and evidence is suggesting that cardiovascular disease is the leading cause of death in chronic SCI (Devillard et al., 2007).

Many of the metabolic, muscle and skeletal dysfunctions related to SCI can be reversed partially by upper body aerobic training, functional electrical stimulation (FES) of the lower extremities and supported treadmill mobilization (Thrasher et al., 2005). This has been shown to increase the Peak VO2 of people with SCI to levels near that of ambulant people (Thrasher et al., 2006). Endurance exercises have also been found to positively influence lipid profiles in people with SCI (Griffin et al., 2009). FES to the lower extremities reverses muscle atrophy, improves muscle mass, and leads to improved isometric strength and better endurance (Griffin et al., 2009). FES training has also been shown to improve lower extremity circulation (Thrasher et al., 2005), and insulin resistance (Griffin et al., 2009) in people with SCI.

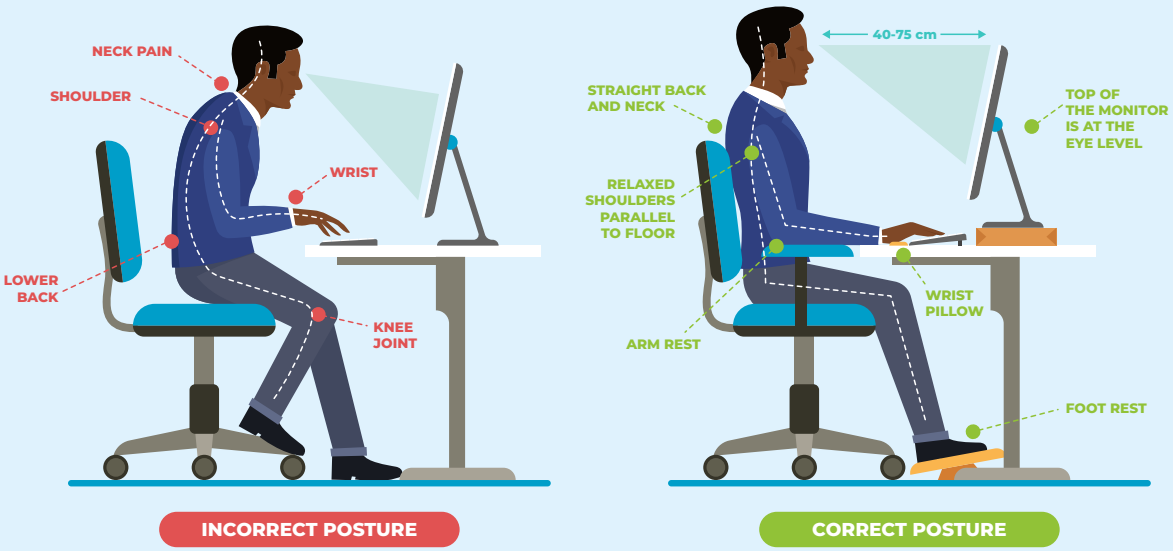
## Discussion

In the absence of specialized equipment's such as a FES bicycle, high intensity aerobic training in people with SCI can only be achieved by intense exercises of the upper limbs since their lower limbs are paralyzed and cannot take part in exercise. However, this puts the shoulder joints at the risk of overuse injury since the upper limbs are already overused for wheelchair propulsion, transfers, and other ADL. Since people with SCI depend on their upper limbs to independently mobilize, shoulder pain can massively impact their quality of life negatively. The only way to avoid this is by use of the FES bicycle to activate the paralyzed lower limb muscles to take part in aerobic training thereby reducing the burden on the upper limbs. It is also important to involve the lower limbs in exercise because this leads to more efficient aerobic training (because of the larger muscles of the lower limbs) than when only the upper limbs are involved. Stimulated lower limb muscle contractions also lead to better circulation decreasing the risk of deep venous thrombosis and loading of the lower limbs leads to decreased incidences of osteoporosis.

Although involvement of lower limbs in exercises leads to more efficient training, exercises involving only the upper limbs are better than no exercise at all in regions where access to modern exercise equipment's is not possible or needs time for implementation due to budgetary issues. However, it should be noted that people with SCI have unique exercise risks that necessitate that their exercises be supervised by a physiotherapist who will recognize any red flags during exercise and who can provide first aid if such complications arise. Therefore, patients with SCI and especially those with high cord lesions are discouraged from exercising in the community gymnasiums.

By **Vane Osoro K.**
Neurological Physiotherapist
PT, MSC – Neurophysiotherapy
University College London

# Ergonomics
# " THE RIGHT FIT"




By **Deep Bhayani**
HOD, Physical Medicine Department
MP Shah Hospital

Ergonomics is about "fit". The fit between a person and what they do, the objects they use and the environments in which they work.

If good fit is achieved, the stresses on people are reduced. They become comfortable, can do things efficiently and productively without discomfort.

Ergonomic risk factors common in the office are:

- Awkward posture
- Sustained posture
- Repetition
- Contact Stress

All these factors lead to Discomfort and then to musculoskeletal disorder.

A musculoskeletal disorder is discomfort that accumulates over time in the muscles, ligaments, tendons, joints or nerves which could include strain, sprain, or inflammation. Musculoskeletal discomfort can occur anywhere in the body and typically are not caused by a single traumatic event, but is due to micro trauma to tissues that does not heal during rest.

**8 fundamental ergonomic principles to help you identify ergonomic risk factors and maintain your stellar safety record.**

1) Maintain Neutral Posture Neutral postures are those in which the body is balanced and aligned. Whether you're sitting or standing, you'll be putting the least amount of stress on your body and maintaining your joints straight. Neutral postures reduce the amount of tension placed on muscles, tendons, and nerves bones, allowing for optimum force output and control. An "awkward posture" is the polar opposite of a neutral posture. As you progress from the neutral position to the extremities of the range, your posture will change the movement This puts extra strain on the musculoskeletal system of the worker. An "awkward posture" is the polar opposite of a neutral posture. Musculoskeletal Disorders (MSDs) are a contributing risk factor that should be addressed to be avoided.

2) Work in the power or Comfort zone Close to the torso, between mid-thigh and mid-chest height, is the power zone for lifting. The arms and back can raise the most weight with the least amount of effort in this zone. This is also known as the "handshake zone" or the "comfort zone." The idea is that if you can "shake hands with your work," you'll be able to avoid reaching too far and maintain a neutral posture

Working from the power / comfort / handshake zone ensures optimum heights and reaches, reducing MSD risk factors and allowing for more efficient and pain-free work.

3) Allow for movement and stretching The musculoskeletal system, sometimes known as the human body's mobility system, was created to move. Working in a static position for lengthy periods of time will exhaust your body. This is referred to as static load.

**Consider the following scenario:**

- Raise your hands over your head for the next 30 minutes
- Stand in the same position for the following 8 hours
- Write for 60 minutes straight with a pencil You will encounter static load if you perform those things. The initial few seconds or minutes don't look too unpleasant, but holding these seemingly stress-free poses for an extended period of time will produce weariness and discomfort. The solution would be to stretch- Stretching reduces fatigue, improves muscular balance and posture and improves muscle coordination. It is also beneficial to take periodic stretch breaks over the course of your work day to get your blood moving and restore your energy

4) Reduce Excessive force One of the key ergonomic risk factors is excessive force. Many jobs necessitate heavy force loads on the human body. Muscle effort rises in response to high force demands, resulting in tiredness and an increased risk of MSD.

5) Reduce excessive Motions Another important ergonomic risk factor is repetitive motion. Many work activities and cycles are monotonous, and they are usually governed by hourly or daily production targets and work processes. When excessive task repetition is paired with other risk variables such as high force and/or uncomfortable postures, MSD can develop. If the cycle time is fewer than 30 seconds, the work is deemed very repetitive.

6) Minimize contact stress Contact stress is caused by constant contact or rubbing between hard or sharp objects/surfaces and sensitive body tissue, such as the soft tissue of the fingers, palms, thighs, and feet, according to OSHA. This contact exerts localized pressure on a tiny area of the body, impairing blood flow, neuron function, and tendons and muscle action. Wrists resting on the sharp edge of a desk or workstation while conducting activities, forcing tool handles into the palms, especially when they can't be put down, tasks requiring hand hammering, and sitting without enough space for the knees are all examples of contact stress.

7) Reduce excessive vibration Numerous studies have demonstrated that prolonged exposure to vibration can cause persistent health problems, which are most likely to occur when contact with a vibrating instrument or work process is a regular and substantial element of a person's profession. Hand-arm vibration can result in a variety of symptoms known as hand-arm vibration syndrome (HAVS), as well as particular disorders including Raynaud's syndrome, carpal tunnel syndrome, and tendinitis. In the fingers, vibration syndrome causes negative circulatory and neurological repercussions. Numbness, discomfort, and blanching are some of the indications and symptoms (turning pale and ashen).

8) Provide adequate lighting Poor lighting is a typical workplace issue that can influence a worker's comfort and productivity. Work is difficult whether there is too much or too little light — imagine attempting to conduct your job without sight! Workplaces with poor lighting and glare can cause eye strain and headaches, and poorly lit workplaces put workers at risk for a variety of injuries. Providing adjustable task lighting to employees is a common solution to lighting issues. Take precautions to reduce screen glare at your computer workplace, and avoid placing the monitor in front of a window or a bright background.

# Prevalence of Psychological Symptoms Amongst Spinal Cord Injury Survivors in Selected Counties in Kenya

**East African Medical Journal Vol. 96 No. 1 January 2019**

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M. K. Guantai 1, Dr. J. M. Matheri 2, Dr. W. M. Karuguti 3, Dr. J. K. Kanyoro 4

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2. PhD, Senior lecturer, Department of Physiotherapy, Jomo Kenyatta University of Agriculture and Technology, Kenya
3. PhD, Senior lecturer, Department of Physiotherapy, Jomo Kenyatta University of Agriculture and Technology, Kenya
4. PHD, Forensic Medicine Department, Mathare Mental Teaching and Referral Hospital, Kenya

## ABSTRACT

**Objective:** To determine the prevalence of psychological symptoms amongst spinal cord injury survivors, in Nairobi, Nakuru and Machakos Counties in Kenya.

**Design:** A cross-sectional study

**Setting:** Community Main outcome measure: Depression, Anxiety and Stress Scale (DASS) version 21 was used to measure the dimensions of depression, anxiety, and stress (DAS).

**Subjects:** 186 rehabilitated spinal cord injury survivors (SCI).

**Methods:** The data regarding socio-demographic characteristics were obtained using a standardized questionnaire. The data were then analysed using SPSS version 25 for the descriptive and inferential statistics.

**Results:** A prevalence rate of 69.35% (n=129) of psychological symptoms (Depression, Anxiety and Stress) was recorded. Majority were male, young and lowly educated. Correlation analysis indicated that males 46.77% (n=87; p-value=0.117) had a higher prevalence of psychological symptoms after SCI rehabilitation compared to women 22.58 % (n=42; p-value=0.148). Regression analysis revealed that there was moderate and statistically significance (r=0.531, p-value=.000) relationship between age and depression, similarly between anxiety (r=0.611, p-value=.000) and stress (r=0.602, p-value=.000). Socio-demographic characteristics play significant influence on psychological symptom status for the participants with 94.7% variation (R2=.947).

**Conclusion:** Psychological symptoms were common amongst the participants and poor young male adults with low education. This study highlights the need for psychological care during and after rehabilitation.

## FULL ARTICLE CITATION:

Guantai, M. K., Matheri, J. M., Karuguti, W. M., & Kanyoro, J. K. (2019). Prevalence of psychological symptoms amongst spinal cord injury survivors in selected counties in Kenya. ***East African Medical Journal***, ***96***(1), 2230-2240.

# VAGINISMUS

## 'THE SILENT MOOD KILLER'

### 'I CANNOT SUSTAIN PENETRATION WHENEVER WE HAVE SEX'

Vaginismus is a condition in which involuntary muscle spasms interfere with vaginal intercourse or other penetration of the vagina. This often results in pain during sex. Often, it begins at the first attempt at vaginal intercourse.

The formal diagnostic criteria specifically requires interference during vaginal intercourse and a desire for intercourse. However, the term vaginismus is sometimes used more broadly to refer to any muscle spasms occurring during the insertion of some or all types of objects into the vagina, sexually motivated or otherwise, including the use of speculums and tampons.

The underlying cause is generally a fear that penetration will hurt. Risk factors include a history of sexual assault, endometriosis, UTI, vaginitis, or a prior episiotomy.

Diagnosis is based on the symptoms and examination. It requires there to be no anatomical or physical problems and a desire for penetration on the part of the woman.

Treatment may include behavior therapy such as graduated exposure therapy and gradual vaginal dilatation. Surgery is not generally indicated. Botulinum toxin (botox), a muscle spasm treatment, is being studied as one form of therapy. Estimates of how common the condition is vary. One textbook estimate that 0.5% of women are affected. There is good news for any woman suffering this condition because outcomes are generally good with treatment.

Often, when faced with a person experiencing painful intercourse, a gynecologist will recommend reverse Kegel exercises (focus on releasing and relaxing the pelvic floor muscles) and provide some additional lubricants. Although vaginismus has not been shown to affect a person's ability to produce lubrication, providing additional lubricant can be helpful in achieving successful penetration. This is due to the fact that women may not produce natural lubrication if anxious or in pain. It is also important to note that achieving sufficient arousal during foreplay is crucial for the release of lubrication which can contribute to the ease of sexual penetration and pain-free intercourse.

The traditional Kegel exercises (contracting and relaxing the pelvic muscles) were previously considered to be a helpful intervention for pelvic pain, but new research suggests that these exercises, which function to strengthen the pelvic floor, may not be helpful or may make conditions that are caused by over-active muscles such as vaginismus worse. Exercises that stretch or relax the pelvic floor may be a better treatment option for vaginismus, hence reverse Kegel exercises.

To help develop a treatment plan that best fits the needs of their patient, a gynecologist or general practitioner may refer a person experiencing painful intercourse to a Pelvic Floor Physical Therapist. These therapists specialize in the treatment of disorders of the pelvic floor muscles such as vaginismus, dyspareunia, vulvodynia, constipation, and fecal or urinary incontinence. Usually the first step entails performing a manual exam both internally and externally to assess muscle function and to isolate possible

trigger points for pain or tightness on the muscles. The pelvic floor physical therapist then develops a treatment plan consisting of muscle exercises, muscle stretches, dilator training, electrostimulation, and/or biofeedback interventions. Treatment of vaginismus often involves the use Hegar dilators (sometimes called vaginal trainers) and progressively increasing the size of the dilator inserted into the vagina. The game-changing technique is to practice conscious diaphragmatic breathing (breathing in deeply allowing one's belly to expand) and allowing the pelvic floor muscles to lengthen during inhale; then exhale, bringing belly in and repeat. This technique would effortlessly slide the dilator in. Research suggests pelvic floor physical therapy is one of the safest and most effective treatments for vaginismus.

Such a condition could traumatize or lower the esteem of an individual, and most times ruin relationships. Once you identify or notice, that you could be suffering from such a condition, it is recommended that you reach out to a pelvic therapist who will access the condition and proceed with treatment. For the therapy to be successful, couples who suffer from vaginismus need to have a candid and compassionate talk and attend sessions together. Most importantly, the male partner should seek consent before going ahead to make love, which helps to mentally prepare his partner for lovemaking and finally penetration. Vaginismus is a treatable condition and therefore no individual should suffer shame.

By **Terry Jepchirchir Chelimo**
Pelvic Floor Physiotherapist

# WE COUNT!

‘Disability is not Inability’, ‘Ability Beyond’, ‘I choose not to place Dis in my Ability’. These are some of the quotes we hear when we encounter people who are abled differently. The big question is, as Physiotherapists, when it comes to physical disabilities, are we doing our best to rehabilitate them to as near normal as possible? What is our main goal in regard to rehabilitation of amputees for instance?

## Rehabilitation after Amputation - Role of Physiotherapists

Amputations are done for different reasons in the society, regardless of the reason for amputation, most patients get a prosthesis after healing and continue with their life thereafter, unfortunately for most of these patients, especially in the fairly recent past do not get to continue with their fields of work or the interests they had before the tragedy. The main reason being lack of proper post amputation rehabilitation, or in some instances, no rehabilitation at all.

## Stages of Prosthetic Rehabilitation

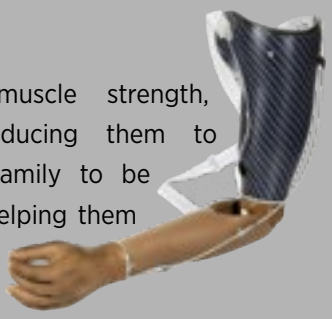
### Pre- Surgical Phase

It is crucial for rehabilitation to begin prior to the amputation, and should involve a multidisciplinary team of specialized clinical practitioners. The patient should be able to understand the process well, its stages, and role of every clinician to the success of the procedure, healing and rehabilitation goals. The family should be involved as well, this is because they have a great role in helping the patient get through the emotional stages, and the physical stages of healing with less pressure. Unfortunately for emergency cases especially if its trauma related, then the team may not get a chance to discuss with the patient and family prior conclusively but after the amputation.

### Post-Surgical Phase/Pre Prosthetic

Prior to this stage, the patient should have gone through cardiopulmonary conditioning, strengthening of muscles, and explained to about phantom limb pain, phantom limb sensation and shaping of the stump.

In this phase, clinicians focus on pain control, emotional support, stump shaping, phantom limb discussion, dos and don’ts, restoring sense of control, gentle progressive bed exercises, increasing muscle strength, psychological support- introducing them to support groups, integrating family to be the first support system and helping them understand the process.



### Prosthetic Phase

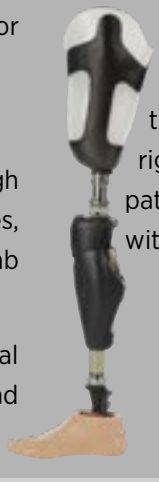
The rehabilitation team get together and come up with a plan, process that is best for the patient and which involves making decisions on a suitable prosthesis for use.

At this stage, the patient is at the center and every goal geared towards the Treatment cycle.

### Treatment Cycle

During discharge, the patient is given an exercise programme to continue with at home, and encouraged to continue shaping the stump, most importantly, with a shrinker, this is quite beneficial since the stump has to correctly fit in the socket and will have a positive impact during gait training, a proper fitting prosthesis, a smooth rehabilitation process.

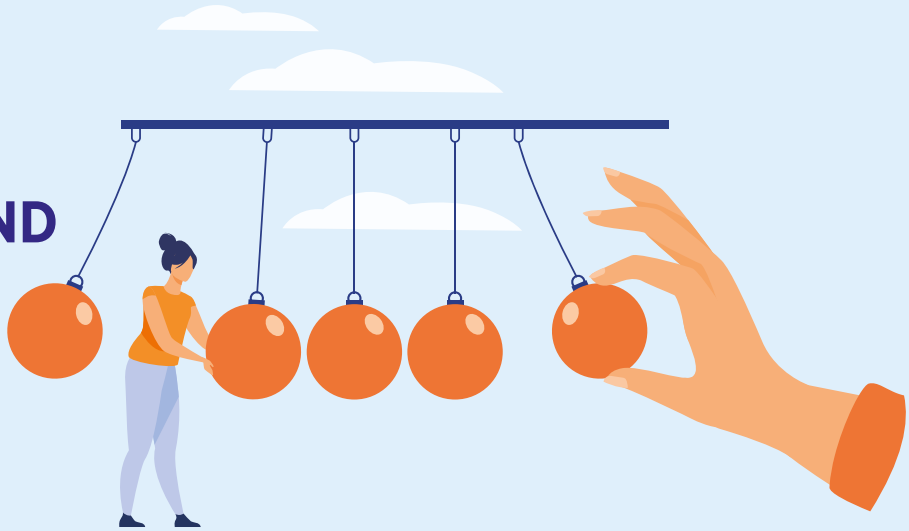
**A borrowed treatment cycle for a prosthesis fitting.**

Lyndon B Johnson once said, ‘Doing the right thing is not the problem, knowing what the right thing is, that’s the challenge’. May we all keep on doing the right thing as we surpass all challenges and make the patients get back to their near normal if not normal with minimal difficulties. We Count!

By **Rebecca Mwangangi**
Ottobock Kenya

# PHYSIOTHERAPY AND THE SUSTAINABLE DEVELOPEMENT GOALS



The 17 Sustainable Development Goals (SDGs) and 169 targets, which were announced by the United Nations in 2012 were to bridge the gaps of what the Millennium Development Goals (MDGs) did not achieve. The SDGs are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental. The Goals and targets were expected to stimulate action over the next 15 years in areas of critical importance for humanity and the planet. All countries and all stakeholders, acting in collaborative partnership, were to implement the plan (Kenya included).

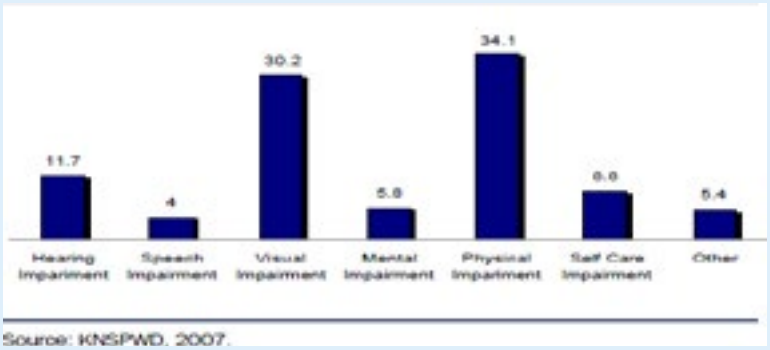
Ten years will have gone under the bridge come 2022. The big question is how your institution or county has played its role as far as the SDGs are concerned especially the SDG3, which states that: ***Ensure healthy lives and promote well-being for all at all ages***. Physiotherapy as a health service plays a critical role in the promotion of the wellbeing of individuals of all ages. This is in particular in the area of ***prevention, curative, promotion*** and ***rehabilitative*** health care services.

Most physiotherapists play a critical role in areas of curative, promotive and rehabilitative health care services, and rarely in the areas of preventive and comprehensive rehabilitative services, which should see the client to near full or maximum independence. Therefore, what this means we get our clients and patients through institutional or other alternative referrals within the health care systems. Occasionally as rehabilitation service providers we engage with other teams in the primary health care systems at different levels.

In the Kenya Health Structure strategic investments, plans 2013 -2017 there appeared to be almost nothing mentioned on the physiotherapy as a service and rehabilitation. Maybe even the latest plan 2018 and beyond may not have much on rehabilitative heath care services. Rarely do you find yourself included if you are not on the planning table.

The 2008 Disability survey, 2009 Census and the Siaya 2018 Community Based Rehabilitation (CBR) evaluation strongly indicate that physical disability is still the most prevalent amongst the various domains across disability.

**National disability prevalence by domain (%)**




Source: KNSPWD, 2007.

Physical Disability comprised the highest number (187) during the interviews, followed by those with multiple disabilities (32) and

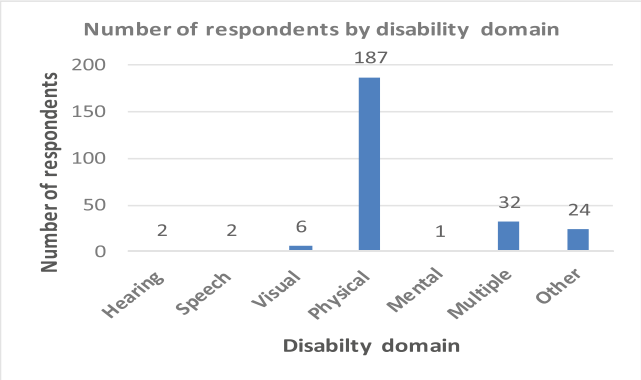
**United Nations**
**Millennium Development Goals (MDGs), 2012**

**17**
**Sustainable Development Goals (SDGs)**

**169 targets**

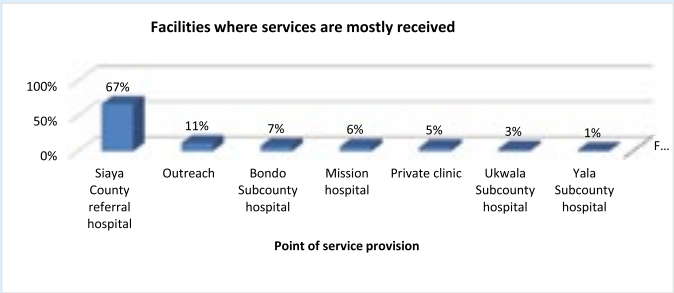
those with other disabilities (24). This translates into 73.6%, 12.6% and 9.4 respectively.

**Source: Siaya County Hospital Rehab. Unit – July 2018**




Most respondents felt that the services provided was in line with the intended changes of providing a comprehensive rehabilitation unit with a Physiotherapy, Occupational therapy and orthopaedic technology services termed as three in one ***("three in one").*** The distribution points and facilities where support services are mostly received are as in the graph below.

N=254




**Source: Siaya County Hospital Rehab. Unit – July 2018**

Most of the services provided are within the unit in Siaya county referral hospital at sixty seven (67%). The outreach caters for about eleven percent (11%) of the services. Amongst the sub county facilities Yala hospital seems to be the underutilized at one percent (1%) followed by Ukwala hospital three percent (3%)

The introduction of mobile and outreach clinical rehabilitation services brought relief for the hard to reach populations in the county. This has also made it easy for PWDs in the community since the travel distance was shortened. Health education on disability prevention and interventions has also been scaled up with the project to improve on its quality and timely interventions.

**Extent of improvement from the rehabilitation services**

According to WHO, Medical Rehabilitation facilitates improving functioning of body structure, mental functioning, activity limitation, such seeing, hearing, walking or problem solving, participation restrictions in normal daily activities.

Regarding improvement from services received from the project, 12 % of the clients expressed "no" improvement after starting to receive rehabilitation services with the project, while forty six percent (46%) and forty two percent (42%) expressed slight improvement and great improvements respectively (**Source: Siaya County Hospital Rehab. Unit – July 2018)**

**Challenges**

The major challenges major challenges included but not limited to; lacks of adequate technical staff; lack of adequate Resources (money, equipment's, appliances, non-pharmaceutical supplies), delays in disbursement of project funds by the donor, some clients, who attend outpatient services were too poor that they could meet the subsidized costs of services in the unit.

**Conclusion**

I would like to conclude by asking the following fundamental question: How many physiotherapy facilities or institutions have planned for comprehensive disability rehabilitation programmes in their Annual operational plans?

It is never too late. You can start thinking of a comprehensive CBR programme within the services you provide. Physical disabilities seems to be most prevalent compared to other disabilities. This needs to be a turning point in our intervention and planning strategies.

By **Raphael O. Owako** MSc. Pt. CBR. Mgt.
Disability and Rehabilitation Specialist
Psycho-social Mgt. of Children in Extremely Difficult Circumstances

# EXCELLENCE IN MEDICAL DOCUMENTATION REFLECTS AND CREATES EXCELLENCE IN MEDICAL CARE

Clinical record keeping is an integral component of good professional practice and delivery of quality healthcare. Regardless the form of the records (***i.e.*** electronic or paper), good clinical record keeping should enable continuity of care and enhance communication between different healthcare professionals. Consequently, clinical records should be updated, where appropriate, by all members of the multidisciplinary team involved in a patient's care, including physiotherapists.

The primary purpose of documentation in health facilities is to ensure that patients get the care they need by providing healthcare professionals information necessary to make good care decisions. They are valuable documents to audit the quality of healthcare services offered and can also be used for investigation of serious incidents, patient complaints and compensation cases. In addition, they serve as a good source of research data and information that informs policy change.

Making sure that clinical notes are up to date and accurately completed, with sufficient information, will ensure proper information is provided to all relevant healthcare workers and aid in potential future decisions. It ensures that health care providers coming on shift correctly understand patients and provide appropriate follow-up care needed. Members of a treatment team will also benefit to learn from each other and coordinate their approaches to a patient's overall care.

Medical records will not only show when health workers are meeting standards of care, but at times they may reveal areas where the hospital or medical facility can improve their procedures, consequently improving quality of care and efficiency of their staff. Accurate records make decision making for patients faster, thus freeing up time for other patients in need of care.

It must however not be lost to PTs that the content and handling of clinical records is strictly regulated by the law, not only because they are fundamental to high quality patient care but also because they are increasingly used in courts and represent an important source of confidential personal information.

It is therefore important that every entry in the medical record should be clear, dated, accurate, legible, and signed by the person making the entry and should be made as soon as possible. For physiotherapists, documentation needs to include comprehensive subjective and objective examinations, diagnosis and treatment plan as well as the treatments that have already been administered and progress notes for every encounter.

As the population becomes increasingly aware of their rights, the number of complaints against professionals has also been on the increase. Health workers must be alive to the fact that the best defense against a malpractice claim is proper documentation. If a procedure is not listed on the patient's chart or file, then judges and juries have no way of knowing if it was done. Neglecting to document important details can lead to adverse patient outcomes and malpractice suits. Documentation is legal protection for both patient and a health care provider in the event of disagreement over care.

At its best, the medical record forms a clear and complete plan that legibly communicates pertinent information, credits competent care and forms a tight defense against allegations of malpractice by aligning patient and provider expectations.

Confidentiality of patient's clinical records, including patient identifiers and data on the diagnosis, prognosis or treatment of any patient or subject is another area that must always be observed being a potential area for litigation.

Physiotherapists therefore as part of the greater health care workforce must now more than ever refocus on these critical aspects of health care. Let the change begin.

By **Douglas Kotut**
Registrar,
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# Work-related Risk Levels Associated with Musculoskeletal Disorders Amongst Flower Farm Workers in Kenya

J. M. MUNALA[1]
B. OLIVIER[2]

## Abstract

**Background**: Work-related musculoskeletal disorders (WRMSDs) is a public concern to social-care and health systems, as well as individuals. Globally, WRMSD is classified as one of the prevalent causes of disability.

**Objectives**: The primary objective of this study was to determine work-related risk associated with work among flower farm workers. The secondary objective was to determine the relationship between WRMSD risk over the previous 12 months and socio-demographic characteristics.

**Method**: A cross-sectional descriptive study was conducted. A sample of 270 participants was drawn from 897 farm workers, of which 184 presented with WRMSD as assessed using the Nordic Musculoskeletal Questionnaire. Quantitative data were collected using the Rapid Entire Body Assessment questionnaire. Inferential statistics were analyzed using the Pearson's chi-squared test ($X^2$) test and based on an alpha level of $p< 0.05$. Descriptive statistics were presented using frequencies and percentages.

**Results**: Respondents who reported medium risk were 49 (26.6%), 80 (43.5%) reported high risk while 55 (29.9%) reported very high risk. There was no relationship between WRMSD risk and socio-demographic characteristics.

**Conclusions**: Almost 75% farm workers in Kenya report a higher risk to exposure of developing WMSD. However, socio-demographic factors did not play a role in the level of risk.

**Clinical Implications:** The high-risk levels of WRMSDs necessitates policy reform in the flower farm industry. Furthermore, the timely identification of associated risk factors is necessary to ensure early intervention.

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# Concussion in Contact Sports

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**What is a Concussion?**

A concussion is a brain injury in which the brain is "concussed" inside of the skull from either a direct impact (i.e., hit by a ball) or a whiplash-type motion in which the brain is concussed through the accelerated motion of the head when the head is snapped forwards and/or backwards.

Athletes in many different types of sports including football, soccer, boxing, baseball, softball, basketball, diving, and cheerleading, sustain concussions. Sports with a higher incidence of concussions include collision sports like football, rugby and boxing.

**What are the classifications of concussions?**

Historically, concussions were graded based on the amount of time that an athlete was unconscious. It is now widely recognized that "loss of consciousness" is not a good predictor of the severity of a concussion.

Determining the classification of a concussion has shifted from using loss of consciousness as the primary criterion to the length of time that signs and symptoms of a concussion are experienced by the athlete.

The key to classifying concussions is to note the number of symptoms that an athlete experiences along with the length of time that the athlete experiences the symptoms on a concussion symptom checklist.

Symptoms can be listed on the left side of the page with the dates across the top. All the symptoms that are experienced by an athlete should be checked off on a daily basis. This concussion symptom checklist can be given to the sports medicine professional to track an athlete's recovery and progress.

The signs and symptoms of concussion include the **four categories**

- **Physical symptoms** — headache; nausea; dizziness; vision or balance problems; sensitivity to light or noise.
- **Cognitive symptoms** — feeling mentally slow or foggy; trouble concentrating; trouble remembering.
- **Emotional symptoms** — irritability; sadness; nervousness; feeling more emotional than usual.
- **Sleep-related symptoms** — sleeping more or less than usual; drowsiness; trouble falling asleep.

**General signs and symptoms of concussion**

- Headache
- Dizziness
- Nausea/vomiting
- Delayed verbal/motor response
- Confusion/difficulty concentrating
- Disorientation
- Slurred or incoherent speech
- Incoordination
- Ringing in the ears
- Inability to remember recent or past events
- Loss of consciousness
- Sleep disturbances
- Photophobia (sensitivity to light)
- Sensitivity to loud noises
- Fogginess

All athletes, parents, coaches, and athletic administrators need to be educated that an athlete experiencing any of the above symptoms needs to be immediately pulled from

the activity and further evaluated by a sports medicine professional. If a sports medicine professional is not providing medical care for the event, the athlete needs to be referred for medical attention.

Time to recovery varies depending on the severity of the injury and the number of concussions that an athlete has had. Research published by Collins, et.al (November, 2002) reported that 40% of athletes recover in one week, 60% in two weeks, 80% in three weeks, and 90% in four weeks.

**How is a concussion diagnosed?**

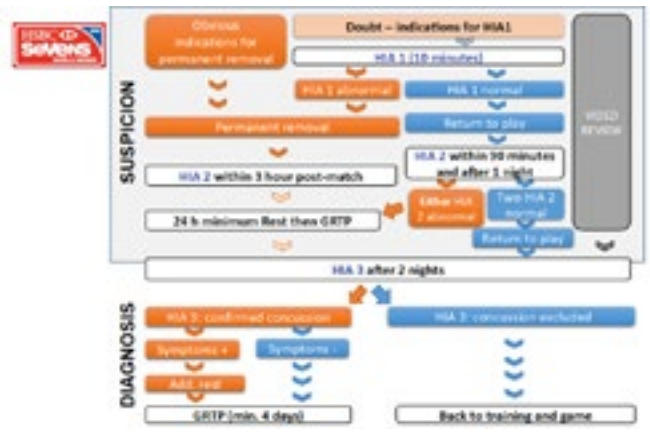
One of the greatest challenges in diagnosing concussions in the past was that the diagnostic tools used to diagnose brain injuries (CT scan, MRI, x-ray) did not detect a concussion because a concussion leaves no physical trace of damage in the brain.

However, there are now a number of concussion assessment tools on the market currently used in sports medicine. One of the more important trends is the use of baseline testing athletes prior to an injury. Assessment tools are administered during the pre-participation physical exam and can provide the medical staff with baseline pre-injury measurements on neurocognitive tests. These tests are then administered after the athlete sustains a concussion. The results are then compared to the baseline test to determine the progress and recovery of the athlete.

A number of concussion screening tools are available including:

- Standardized Assessment of Concussion (SAC)
- Balance Error Scoring System (BESS)
- Symptom checklist
- Computerized balance testing
- Immediate Post-Concussion Assessment and Cognitive Testing (ImPACT)
- SCAT 5 (HIA1, HIA2 and HIA3)

**SCAT 5 Screening Flow Chart**




**What causes concussions?**

The mechanisms of injury for concussion are unique to each sport. Some common causes of concussions are head to head contact, head to body contact, head to ground contact, and ball to head. One of the sports with the highest incidence of concussion is American football.

Although football players are required to wear helmets, helmets cannot prevent all possible head injuries. Football helmets even carry a "risk" label stating that athletes wearing the helmet may be at risk for catastrophic injury or even death while using the helmet.

Because specific hits in football are known to cause concussions and neck injuries (i.e., helmet-to-helmet hits) these hits are now illegal in the sport of football. However, one can still see these types of hits at all levels in football. Properly taught mechanics and enforcing the rules can decrease the incidence of some of these types of injuries.

In the sport of soccer, concussions are most commonly caused from "head-to-head" collisions when two athletes are competing for the same ball as in a "header". While direct collisions are one cause of concussions, impact with a high-speed implement is another common cause of concussion.

Baseball and softball players can be hit in the head while either at the plate or on the field. While at the plate, the ball players are somewhat protected by a helmet. However, the helmets used by most players can only withstand forces of up to 70 mph.

Because of this Rawlings has developed the Rawling100 helmet that was designed to withstand forces of up to 100mph which would be typical of a fastball at the professional level. These helmets were distributed by Rawling in 2009 to minor league teams for implementation and feedback.

Both baseball and softball pitchers are at significant risk for concussion-type injuries because of their proximity to the plate. Depending on the level of competition, softball pitchers may be within 35 feet of the plate after releasing the ball. If a ball is hit off of a pitch traveling 50mph to 60mph, the ball can hit the pitcher before the pitcher has time to react.

Baseball pitchers are at risk because of their follow-through mechanics after release of the pitch. Once a baseball pitcher releases the ball, his follow through mechanics continue to carry the athlete into a position in which his back is facing the batter. If a ball is hit up the middle as in a line drive, the pitcher does not have an opportunity to react defensively before the ball has found its target.

Falls can be another cause of concussion as seen in basketball and diving. Any athlete who falls greater than the

distance of his/her height can be at risk for a head injury. A basketball player who goes up in the air for a rebound and gets undercut can then fall and have a collision with the floor. Because the floor does not have any give, all of the force between the colliding forces is absorbed into the skull and brain of the athlete resulting in a significant injury.

**What is the treatment for a concussion?**

The recommendation coming out of the 3rd International Conference on concussion in Sport held in Zurich (November 2008) is that an athlete diagnosed with a concussion needs to have both physical and cognitive rest until symptoms dissipate and then a carefully monitored symptom-free program of graded exertion prior to medical clearance (McCrory, P., Meeuwisse, W., Johnston, K., Dvorak, J., Aubry, M., & Molloy, M, 2009).

Although it has long been known that physical rest was important for recovery, the addition of cognitive rest is an emerging trend. The basis underlying cognitive rest is that the brain needs rest in order heal just like any other musculoskeletal injury. The brain takes longer to heal if the brain is actively engaged.

With this in mind, it is now recommended that student-athletes diagnosed with concussion be kept home from school with instructions of no brain activity including use of computers, video games, and no texting devices. Cognitive rest is especially important the first 48 hours post-injury.

Athletes may also suffer from photophobia (sensitivity to light). Individuals with photophobia will be more comfortable in a setting void of sunlight or bright lights.

The most important aspect in the care of a recovering athlete is that the athlete be monitored by an adult throughout the time that the athlete is experiencing concussion symptoms. The purpose of close monitoring is to ensure that the athlete does not digress in his/her responsiveness indicating a possible life-threatening brain injury.

As the athlete's symptoms begin to dissipate, the athlete can gradually begin increasing their cognitive and physical activities. However, if the symptoms return, the athlete needs to reduce their activity until the symptoms dissipate again.

**What happens if I return to sport before my symptoms clear?**

The risk of an athlete returning before a concussion has completely healed is a life-threatening condition called **second impact syndrome.** As the name implies, second impact syndrome occurs when an athlete sustains a second impact to the brain before the initial injury has healed.

The second impact results in rapid swelling within the skull increasing the intracranial pressure and compromising the brain stem (part of the brain responsible for regulation of the cardiac and respiratory functions). What is devastating is that the time from second impact to brain stem failure is only minutes (usually two to five).

Adding to the devastation of this syndrome is that most cases have occurred in children and adolescent athletes (Anderson, M., Hall, S., & Martin, M., Foundations, 2010). Because sports medicine professionals are not on the sideline in most youth sports, the fatality rate is high.

Athletes need to be taught to be honest and self-report their symptoms to parents, coaches, and sports medicine personnel. There are reports of high school athletes who have died from second impact syndrome who told their friends about their headaches, but who did not report their symptoms to coaches or sports medicine personnel.

**Can concussions cause permanent brain damage?**

Research underway at the Center for the Study of **Chronic Traumatic Encephalopathy (CTE)** at the University of Boston's School of Medicine has revealed permanent brain damage in the brains of retired NFL football players who had been diagnosed with multiple concussions. This research is the first of its kind to link permanent physiological changes in the brain to multiple concussions.

**How many concussions can I have and still compete?**

There is no definitive answer to this question. Because each athlete experiences the signs and symptoms of concussion differently, this decision needs to be made by the athlete, the athlete's parents, and the athlete's sports medicine team.

The research has shown that athletes with recurrent concussions take longer to recover and have more severe symptoms with each successive concussion. While an initial concussion may have symptoms lasting only one to two days, symptoms of subsequent concussions can last for weeks and even months.

Research published in Neurosurgery (Collins, M.W., et. al., 2002) reported that athletes with three or more concussions were more likely to suffer loss of consciousness, anterograde

amnesia (loss of memory for events immediately following the injury), retrograde amnesia (loss of memory for events immediately preceding the injury), and confusion.

**Recovery – Getting Back to Sport**

The recommendations for return-to-play protocol were published in the Consensus Statement on Concussion in Sport: The 3rd International Conference on Concussion in Sport held in Zurich (November, 2008).

**GRADUATED RETURN TO PLAY PROTOCOL (GRTP)**

**The recommendation is for a graduated return-to-play protocol following a step-by-step progression.**

**The protocol includes five rehabilitation stages.** The athlete completes the activity on one day and then can progress to the next stage the following day if the athlete is asymptomatic (symptom free) during the activity. The athlete may only start the progressions when he/she is asymptomatic at rest**.**

**Stage 1 –** Light aerobic exercise (walking, swimming, or stationary cycling) keeping exercise heart rate to less than 70% of maximum predicted heart rate and no resistance training.

**Stage 2 –** Sport specific exercise (activities that incorporate sport-specific skills excluding any head impact activities)

**Stage 3 –** Non-contact training drills (progress to more complex drills, but no contact).

**Stage 4 –** Full-contact practice (following medical clearance, participate in normal practice activities)

**Stage 5 –** Return to competition

If any concussion symptoms return during any of the stages, the athlete should return to the previous level and try to progress again after a 24 hour period of rest.

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# THE PIONEER, PROFESSIONAL, ENTRENPRENEUR & MENTOR

**KSP recognition of Mr Nyamu for mentorship of young professionals**

Mr. Nelson Muthama Nyamu is known to many as the CEO and founder of Physical Therapy Services Ltd. Kenya, a leading regional centre for both clinical physiotherapy and rehabilitation equipment and aids in Kenya. It's safe to say that not many have been in the field as long as him. He is one of the pioneering physiotherapists in Kenya having gotten his Diploma at the Kenya Medical Training Centre (KMTC) in Nairobi, in 1978 and practiced both in the public and private sector until a few years ago when he retired from clinical practice.

## The Trailblazer

Even though in retirement, Dr. Nyamu looks back at his career with pride. This is especially because he can confidently say that most benefits enjoyed by the younger generation of physiotherapists are a product of their toil and foresight. He notes that from the early day of his career, he was unable to shake the feeling that physiotherapists needed to be more educated than they were. This is what drove him and his colleagues to come together and use their collective strength and will to fight for better terms and inclusion. It was not as easy task by any standards. They fought through parliament to pass bills that would allow colleges to offer degrees and post graduate programmes in Physiotherapy. They thereafter embarked on lobbying with various institutions of higher learning to allow these programmes. The whole process was challenging; not just to make headway but also the financial requirements which fell on them. Filled with nostalgia, "But in the end we prevailed. I really would

have loved to have gotten a Physiotherapy degree, but the fruits of our labour came a little too late for that. However my joy is the gains we made which are been enjoyed by the physiotherapists today and will continue to be enjoyed for generations to come."

**The Entrepreneur**

In 1997, while working at The Aga Khan Hospital as the Manager-Physiotherapy Department, he noted quite a gap between the prescriptions being given by the doctors and what was available in the market. He attributes this to the fact that most of the doctors had gone for training abroad and were more exposed to what was available there and would prescribe this expecting the physios to provide the equipment. However the reality on the ground was that most of these items were not available in the Kenyan Market. This gap was both in the physiotherapy equipment and aids and it affected the patient care outcomes. Once the prescription was raised they had to go through research, then importation which took time and proved quite dear for the patient to finally receive the required care. As is the cardinal rule with any business, we could say it was the gap between demand and supply that propelled him to venture into entrepreneurship. But it was more than that. Having witnessed first-hand what that gap meant for patient care outcomes, it was identifying what he could do to ease this burden and provide of a much needed solution to his patients that served as the clarion call for Dr. Nyamu to venture into entrepreneurship. With Physical Therapy Services he was able to bridge the gap and offer a much needed solution.

**In the Beginning**

Being one of pioneers in physiotherapy private business, he notes that the government and professional licenses and approvals were straight forward and easy to access. This is not to say the beginning was easy. Firstly, when they began individual clinics, the expectation was to stock and equip just like the private hospital clinics and yet they did not have the wherewithal. Secondly, they had to convince the clients and other players that their services and goods were just as good if not better than the private hospital clinics. Thirdly, while physiotherapists were ready and open to adopt the equipment, they lacked the know how to use them. Having been in practice himself, he had realized that in college they were taught the modalities of various techniques, but in practice, they had never experienced use of these equipment and so they were not able to competently handle various techniques in rehabilitation. To cater to this, they not only imported the equipment and aids but also had to facilitate trainers from different countries and companies so that the physiotherapists could have an experience with the equipment and technique. In explaining how dynamic this is, he likens this to doctors; doctors have the knowledge of a drug's action but they don't know all the drugs in the market and medical reps have to teach and explain new drugs to the doctors so that they can prescribe them to patients in their practice. He gives an example of a breast cancer patient who has undergone a mastectomy and needs to take care of a swollen arm resulting from interference with the lymhatic system and an aid to cater for the removed gland. In such a case, a compression stocking would be prescribed to deal with swelling and a prosthetic to cater for the removed breast. Such interventions are not only medically indicated but also work to enhance the quality of life and long term rehabilitation to deal with debilitating conditions. But these prosthetics and aids are not produced in Kenya so without the training, many physiotherapists cannot make proper use of them. Through continued training and quality services, they were able to overcome the challenges and gain the trust and respect of the clients both individual and private hospital clinics. Currently they supply private and public hospitals with state of the art equipment used world over for their rehabilitation clinics. Physios today are not experiencing disconnect between what they learn at school and what is available in the market for use. What stands out for him is the state of the equipment from when he was working in hospital and the fact that the physios are

now very well trained in rehabilitation.

## The Gap

Healthcare is expensive and while it should be affordable and readily available to all, it is true that most of these items are still quite expensive to the ordinary Kenyan. However, Dr. Nyamu denotes that the focus for the physiotherapist has got to be mainly on the availability of the equipment. On matters affordability he notes that only an improved economy, where insurance caters for patient care up to and including rehabilitation can bridge the gap and ease the burden of care. Unfortunately, the current insurance schemes do not cater for rehabilitation equipment and aids. It is the wish that Universal Health Care would cater for the needs of patients in day to day rehabilitation care but very few if any items are catered for. There is still hope in Universal Health Care but he opens up that the scope is still not clear. He reminds the healthcare fraternity on how easy it is for anyone to be afflicted, especially after the experience we had with Covid which knocked on all doors, rich or poor, young or old. He ruminates the only way we can all be safe is through available and comprehensive insurance which can cater for all patient needs in case of any eventuality because none of us can afford the high cost of rehabilitation especially when one is sick and unable to work.

## The Mentor

Dr. Nyamu is a mentor to many in the physiotherapy community and encourages the younger generation not to shy from entrepreneurship; “The field is now very competitive but those who would like to join the game should do so. The pie is big, and I have experienced it getting smaller and smaller over the years, but there is room for more of us to deliver much needed care and support to patients”. Having been a pioneer and trailblazer in the field, he reiterates that the need to work for others and help those who cannot help themselves, echoing the altruism principle in physiotherapy.

His future outlook is to continue with the distribution of physiotherapy equipment to the East African region in Kenya, Tanzania, Uganda, Rwanda and Burundi among others as well as mentor the new generation of physiotherapists as they advance in the profession.

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