PHYSICAL FITNESS COMPONENTS AS PARAMETER FOR THE TREATMENT OF THE MENTALLY AND SOCIALLY CHALLENGED PEOPLE

By

DR. IBRAHIM LARO ABUBAKAR
Department of Kinsiology,
Health Education and Sports Administration,
Kwara State University,
Malete.

ELIJAH O. OLUSHOLA
Department of Kinsiology,
Health Education and Sports Administration,
Kwara State University,
Malete.

and

ABUBAKAR Y. ABDULKADIR
Department of Early Childhood and Primary Education,
Tai Solarin University of Education,
Ijebu-Ode,
Ogun State.

Abstract

This study is mainly on physical fitness component which is used as a parameter for treatment of socially and mentally challenged people. There is a minimum amount of fitness that is necessary for survival or to sustain an individual in his everyday job. Anything below this minimum

means that such an individual's cannot function. An individual should be able to run, walk, carryout some weights and be ready for emergencies. This idea gives rise to the slogan "mens sana in corpora dano" which means "A sound mind in a sound body". Physical fitness is one of the most important keys to a healthy body. It is the basis of all the activities of our system. This write-up dwell on the meaning of physical fitness, the importance of physical fitness, the scope of physical fitness and treatment and role of exercise in maintaining good posture etc as there are physical activities designed to help develop all aspects of physical fitness of an individual like muscular strength, endurance, cardio-respiratory endurance, speed etc.

Keyboard: Physical fitness, serially and mentally challenged people, fitness components, sound mind, sound body.

Despite the widespread interest in physical fitness, it is still difficult to define it in a manner that is acceptable to all concerned. Fitness is that state which characterizes the degree to which a person is able to function effectively. Fitness is an individual matter. It implies the ability of each person to live most effectively within his potentialities. Ability to function depends on the physical, mental, emotional, social, moral and spiritual.

Physical fitness is related to health. There are many definitions of physical fitness. The president's council on fitness says that fitness is a broad quality involving medical and dental supervision and care, immunization and other protection against diseases, proper nutrition, adequate rest, relaxation, good health practices and sanitation. Exercise is regarded as an essential element to achieving and maintaining physical fitness. Through vigorous exercise, an individual can develop his strength. Speed, cardiovascular muscular endurance and other physical qualities

Meaning and scope of physical fitness

Physical fitness: Is a body condition in which an individual is able to carry out efficiently all of his or her expected daily activities without easily getting tired and without suffering much pain in. or being hindered by, any part of his body or its systems. When a person is fit, it also means that he is healthy and that the body systems, such as the cardiac system, the respiratory system, and the muscular system are functioning properly. A person that is physically fit has no form of physical disability

Physical fitness can be acquired through exercise, participation in regular, well-selected, and planned exercises can make a person physically fit if he is not ill

Components of Physical Fitness

Physical fitness has been divided into two areas:

(i) Health related physical fitness

(ii) Performance related physical fitness

A. Health Related Components of Physical Fitness (Scope)

These are the factors that relate to the functional capacity of the body and they are as follows:

(i) **Muscular Endurance:** The ability to continue or persist in strenuous task involving large muscle groups for long period of tine

(ii) **Muscular strength:** As the maximum one's effective forces that can be excited against a resistance. Which could be isometric, isotonic and eccentric contractions

(iii) **Flexibility:** Is the functional capacity of the joint to move through a full range movement

(iv) **Cardio Respiratory Endurance:** This is the ability of the heart, blood vessels and lungs to supply oxygen to working muscle and the ability of the miscles to utilize the oxygen to support work or physical activity for a long period

Examples of Physical Fitness:

Flexibility Test: touch toes with knees straight, crouch, hand flat to floor, heels raised to touch head behind etc.

Physical fitness is one of the most important keys to a healthy body. It is the basis of all the activities of our society. ***Physical fitness is important for many reasons***.

1. Physical fitness helps to promote a sense of well being
2. It improves stamina
3. A physically fit person has reserves of strength necessary for strenuous activities and unexpected bursts of energy
4. A fit person is able to carry on normal every day functions with minimum of strain on the vital organs and muscle groups
5. Fitness is important in the prevention of both minor and major illness
6. The speed of recovery from illness in a physically fit person is faster and enhanced
7. Physical fitness adds to the aesthetic (beauty) of an individual.

B. Performance – Related Fitness Include these factors that are critical to skillful performance in various physical activities. Factors such as speed, reaction time, agility, power, balance and coordination are of the utmost importance when skill is considered. In the past, this area has been referred to as motor ability

Performance Related Components of physical Fitness

(i) **Agility:** Is the ability to change direction accurately and quickly while moving rapidly

(ii) **Power:** Is regarded as explosure strength

(iii) **Co-ordination**: This involves various parts of the body such as eye, foot to coordinate

(iv) **Speed and Reaction Time:** Speed is defined as the quickness with which one is able to move his or her body from one point to another, also a time taken to perform a test such as this also includes reaction time

(v) **Balance:** Is the ability to maintain equilibriums of the body

Monitoring and Treatment Guidelines for Severe Mental Illness (SMI)

The excess mortality rates in persons with Severe Mental Illness are largely due to modifiable health risk factors. Therefore, the monitoring and treatment of these factors should be a part of clinical routine care of the psychiatrist

Monitoring

Physical health checks should focus on monitoring:

- Weight gain and obesity (body mass index, BMI; Waist Circumference,WC;
- Blood pressure;
- Dietary intake;
- Activity level and exercise;
- Use of tobacco and alcohol or other substances;
- Fasting blood levels of glucose;
- Fasting blood levels of lipids, especially triglycerides and high-density lipoprotein (HDL) cholesterol;
- Pro lactin levels (if indicated by reproduction system and/or sexual symptoms)
- Cardiovascular disease (CVD) risk and electrocardiographic (ECG) parameters;
- Dental health;
- Liver function tests, blood count, thyroid hormone, electrolytes (periodically, as indicated)

Many of these physical health monitoring tests are simple, easy to perform and inexpensive and therefore can and should be implemented in health care systems of developed as well as in developing countries. Moreover, even in developing countries, several of these simple and inexpensive measurements (e.g., body weight and blood pressure) can be routinely done by health workers other than doctors. Screening and assessment of physical health hould begin with the patient's personal and family history, covering: diabetes mellitus (DM), hypertension, CVD (myocardial infarction or cerebrovascular accident, including age at onset), smoking, diet, physical activity, secondly, as the individual components of the metabolic syndrome (MetS) are critical in predicting the morbidity and mortality of CVD, DM, cancer and other related diseases,

these, as well as some other non-metabolic parameters, should be checked at baseline and measured regularly thereafter. Concerning metabolic parameters, one should remember that drug-naïve, first-episode patients, as well as children and adolescents with psychotic disorders, are at higher risk for metabolic side effects of medications. Higher baseline values of weight and visceral fat distribution, as well as laboratory evidence of impaired glucose and lipid metabolism, have been, although not consistently, reported for these patients. Likewise, young drug-naïve patients of non-caucasian ethnicity with a personal or family history of metabolic risk factors are more likely to develop metabolic side effects

Abdominal Obesity

Psychiatrists should, regardless of the medication prescribed, monitor and chart BMI and WC of every patient with SMI at every visit and should encourage patients to monitor and chart their own weight. WC seems to be a more useful measurement than BMI. Prospective data in patients with impaired glucose tolerance reveled that central adiposity, having a strong correlation with insulin resistance, better predicted future type 2 DM than BMI. WC is also a stronger indicator than BMI for systolic blood pressure, HDL- Cholesterol, or triglycerides, and has been proposed as the best single measure to identify individuals at high risk for CVD and Mets. It is also a simple tool to assess the likelihood of Insulin resistant: in one study, a WC <100cm excluded insulin resistant in 98% of males and 94% of females. This assessment can easily be done with a simple and inexpensive waist tape measure. The International Diabetes Federation (IDF) definition. Provides sex-and race-specific criteria for defining elevated WC to identify people with central obesity, thus adapting this

CVD Risk and ECG Parameters

The patient's individual CVD risk should be calculated from his/her age sex, presence or absence of Dm, smoking habit, systolic blood pressure and total cholesterol, or the ratio of total cholesterol to HDL-Cholesterol with reference to published guidelines, local protocols or online risk calculators. These measurements are relatively simple and easily accessible.

Oral Health

Although currently considered by many clinicians as not important, oral health needs to be scrutinized in the same way as other physical health problems <-88. Risk factors\ for a poor oral health (e.g smoking, medication side effects and individual oral care needs should be assessed. Oral health advice, support and education should be provided to SMI patients, appropriate to their needs. Preventive, and treatment programmes need to be tailored to meet the individual needs of patients with different diagnoses, severity and stages of mental illness. These should include dietary issues, smoking, and oral side effects of medication, namely dry mouth and carbohydrate

craving. Advice on the dietary control of sugars and the importance of sugar free lubrication.

Social and Mental Benefits of Regular Exercise

Most people want to know why they should exercise regularly and what benefits they can derive from regular participation in a well-designed exercise program. In order to evaluate the benefits of exercise, it is important to identify the reasons why people becomes interested and more involved in exercises:

- To feel better in general
- To lose weight
- For recreation and enjoyment
- To become fit
- To become more healthy
- To strengthen the heart and lung
- Doctor's recommendation
- To socialize and meet new friends

The degree of success achieved by participants in organized exercise programs, obviously depends on the frequency of participation. The percentages of respond beneficial effects, both for those who participated regularly in an exercise program and for those who did not. For the average person there are many benefits associated with regular physical activity, some of these are summarized below:

Associated Benefits of Regular physical Activity

i. Improved Health and Well-being:Feeling of better health, more energy available to perform daily tasks, increased ability to meet emergencies and increased general viability.

ii. Reduction of mental and emotional stress: Exercises reduces tension, one is able to relax more, more adequate sleep and rest and more positive work attitude.

iii. Improved personal appearance: Reduced body weight, decreased body fat, Enhance self- concept and body image, delay of aging process, decreased amount of food, more selective in type of food and improved posture and appearance.

iv. Decreased incidence of degenerative health: Less chance of heart attack

v. Disease and common health components: Greater chance of surviving a heart attack, improved fat metabolism, decreased level of cholesterol, triglycerides and decreased blood pressure.

vi. Improved Cardiovascular endurance: Increased musculature of the heart, so it can contract more forcibly, decreased stroke volume, ability to perform work before becoming fatigued, ability to recover faster following a strenuous task,

less stress placed on heart during the performance of a sub maximal task and increased physical work capacity.

vii. Improved strength and muscular endurance: Less chance of muscle or joint injury, reduction of low back pain problems and increased muscle tone

viii. Increased in flexibility: Decreased incidence of low .

Combination of social benefits and changes occurring in the body as a result of physical fitness

Several change stages take place as a result of regular exercise and this could explain why there is a reduction in the incidence of cardiovascular disease for those persons who exercise regularly. The changes include the following:

1. Increase in the efficiency of the heart
2. Development of collateral circulation in heart
3. Decreased resting heart rate, meaning more rest for the heart
4. Quicker clearing of fats from the blood stream
5. Decrease in cholesterol and triglycerides
6. Increased level of high density lipoprotein
7. Reduction of excess weight and body fat
8. Decreased blood pressure

Each of these changes is a possible explanation why regular exercise might reduce the chances of suffering from some form of cardiovascular disease, such as;

Low Back Pain

Low back pain is one of the most common complaints among adults everywhere today. It results in many lost hours of work and much discomfort. Kraus and Raab (2013) have classified. Low back pain as a disease caused by insufficient activity. This is in agreement with Feffer (2010), a well-known orthopedic surgeon, who stated that "Increased incidence of low back pain is related to the increasingly sedentary life we lead. We simply do not get enough exercise." Low back pain as a social disease occurs fairly early in life and appears to be most prevalent from 25 to 43 years of age.

Causes of Low Back Pain

The major cause of low back pain is improper muscular development. The development and maintenance of muscle function is dependent upon its use. The strength of a muscle is directly related to the amount of work that it does. As a muscle works against a resistance, the strength of that muscle will increase, if the muscle does not perform any work, a loss of strength will result. In active person, many of the large muscle groups are not used frequently enough: They therefore lack sufficient strength to maintain the correct body alignment, which is one of their specific tasks.

Poor abdominal development is one of the most common causes of low back pain. The pelvis should be tipped up in the front, but if the abdominal muscles are weak,

they are unable to exert sufficient pressure to keep the pelvis in place and it drops in the front, causing a poor joint flexibility, other postural difficulties include round shoulders, and joint or muscle injury caused by non alignment with various body segments properly. If a joint is not moved through its full range of motion frequently, the result may be a foreshortening of muscles and ligaments. Proper flexibility can help prevent orthopedic problems. Muscle strain caused by poor flexibility and backache caused by shortened lumbar and hip flexor muscles are problems that can be helped with proper flexibility as one of the basic component of physical fitness.

Conclusion

Physical fitness is highly essential in one's life. It gives someone the ability to last longer and preserved under difficult circumstances where an unfit person would give up. It is also the ability to carryout daily tasks without undue fatigue and with ample reserved energy to enjoy leisure time activities and meet unforeseen emergencies. It's importance to one's life cannot be over emphasised, therefore it should be given utmost priority.

Recommendation

Physical fitness and body conditioning is of paramount importance to the body. It is highly recommended for everyone to ensure putting the body in proper physical shape with a view to make it meet extremes and exceptional demand upon it. Training and exercise aim to condition the muscles, the heart, the lungs, the joints and the whole body making them to function at maximum possible efficiency and to stand up under the most grueling stress and strain.

References

Abubakar, L.I (2012*). Dilema of Education in Africa: the role of phy, sports and games ED against of change journal and word educations forum* Vol 2 No 1 (358-363)

America's Mental Health Survey, National Mental Health Association, (2001)

Ayo. Z. and Lamu A. (2003). *Element of Physical and Health Education for School and Collegees* Ilorin. Rambow Publisher 1st Edition.

Carlson R. N. (2010). Psychology the Science of Behaviour. Toronto, Ontario: Pearson Education Incorporated. PP. 548 – 549. ISBN 978-0-205-6452-4.

Crawford, M. J. and Talwar, N. (2006). "Music therapy for in-patients with schizophrezia: Exploratory randomized controlled trial. *The British Journal of Psychiatry*

Federal Government of Nigeria FGN/UBE2010. Pg. 122
http://www.communitycare/co.uk/articles/16/04/2013/119098/a-quick-guide-to-mental-health-payment-by-results-and-its-impact -on-social-work.htm.
http://www.gov.uk./government/publications/mental-health-payment-by-results-arrangements-for-2013-14

Repper, J. & Perkins, R. (2006). *Social inclusion and Recovery: A model for Mental Health Practice*. Bailliere Tindall, UK. ISBN 0-7020-2601-8

Schacter, D.L. (2010). *Psychology*. (2nd ed. P. 620) New York: Work Pub.