

**THE NEED FOR STRUCTURED EXERCISE PROGRAMME IN  
THE IMPROVEMENT OF PHYSICAL FITNESS LEVEL IN  
REHABILITATED FEMALE DRUG ADDICTS**

**CONFERENCE PAPER**

**BY**

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## **ABSTRACT**

Health related fitness is a state characterized by an ability to perform daily activities with vigor, and demonstration of traits and capacities that are associated with low risk development of hypokinetic diseases (McGlynn, 1993). Hypokinetic diseases are associated with sedentary life style. In the opinion of Getchell, Pippin and Varnes (1987) sedentary living and habits are not compatible with the design of human body, since the muscular, respiratory and circulatory systems were designed specifically for regular movements. Depriving the body of regular vigorous movement or exercise can cause these systems to degenerate.

Another major factor responsible for degeneration of various systems of the human body is drug addiction. Addiction is seen as the continuing, uncontrolled, and explosive use of a drug, which will not only induce intoxication, but also cause excitation, hyperactivity, euphoria and insomnia. Physical and psychological dependence on stimulants have rendered many drug addicts useless as far as subsequent productive activities are concerned and in this case females are victims.

Research has indicated that exercise brings about changes in health related fitness parameters of sedentary individuals (Thaxon, 1988). Otinwa (1996) also reported significant positive changes in the health related fitness variables of rehabilitated sedentary male drug addicts following 12 week structured exercise programmes in the improvement of physical fitness level of rehabilitated female drug addicts, which might have implications for the addicts' integration into normal living.

## **INTRODUCTION**

Drug addiction is a social menace which has witnessed great increase in the society within the last decade. Race, sex, education and socio-economic strata of individuals in the society are not barriers to getting addicted. Researches have shown that the rate at which females are involved not only in drug trafficking but in drug addiction too (Otinwa 1996). Adegoke, (1996) also stated that drug abuse is a very serious, common problems among youths of different socio economic backgrounds in Nigeria. Main cause of this social menace is as a result of unhappy and poor family background culminating in defective personality developments.

Drug addiction is a condition when there is an uncontrolled, and continuing explosive use of a drug (Carroll, 1993). Teenagers, adolescents and youths have been found to be involved in the use of drugs such as Narcotics-Heroin, Sedatives - Barbiturates, Cannabis - Marijuana, Hallucinogens-Lysergic acid Diethylamide, and Stimulants-Cocaine. The latter is fairly easy to obtain and it is commonly called the following names among the users, coke, coco, crack, snow, rock, and blow (National Drug Law Enforcement Agency, 1992). Olufade, (1994) reported a survey carried out among post primary school students in Lagos, which revealed that 22 percent of 2,660 students had at one time or the other, used psychoactive substances. Continued dependency on these substances have diversified consequences.

## CONSEQUENCES OF DRUG ADDICTION

The consequences of the intensive use of drugs according to Ghodes and Khan (1988) can be divided into three:

- (i) physical consequences
- (ii) psychological consequences
- (iii) social effects.

### (i) Physical Consequences

Drug addicts experience numbness, dryness of the mouth, burning sensations of the eyes, sweating, muscle twitches, restlessness, defecating, high blood pressure, weight loss and sexual hallucination.

### (ii) Psychological Consequences

The dependent stimulant user, may become irresponsible, moody, suspicious, unreliable, self-centred, irritable and in certain circumstances, violent. Perceptual distortions and exaggerated suspicion. It might lead to psychosis (Arif, 1987).

### (iii) Social Consequences

Drug addiction leaves family in a state of turmoil, friends and strangers may be robbed by addicts who may subsequently resort to drug dealing and other illegal activities to support their habit.



It causes major problems for government, in that, it undermines traditional and social ethics. The loss to a nation can be immense because the productivity of these individuals is reduced or lost (Arif, 1987). All the above consequences have implications for their rehabilitation and integration.

### **REHABILITATION OF ADDICTS**

The major content of rehabilitation programme for addicts is medical treatment, as well as recreation in physical activities which has been given a very partial consideration even as observed at the Psychiatry Hospital, Yaba, Lagos, Nigeria.

Addicts are admitted into the hospital, diagnosed and treated medically under Psychiatrist. The duration of treatment depends upon each patient's response to medication. Recreational activities in which addicts are exposed to, include table tennis, local games e.g. "ayo" and watching of television.

The post rehabilitative programme is aimed at primarily integrating the addicts back into the society. Addicts are therefore exposed to various types of vocational training where selection is primarily based on performance and interest. Philanthropist, social workers and religious organizations are given opportunity to fully visit and relate with the subjects.

\* Recreation in physical activity is given an insignificant recognition even though certain recreational activities are made available in some rehabilitation

camps, such as Adeniji Adele Rehabilitation Centre. This paper therefore reviewed literatures to ascertain the need for structured exercise programme in the development of physical fitness level of rehabilitated female drug addicts.

Structured exercise programme consists of exercises designed and graded for a certain period to meet the health needs of a targeted group, in this case, rehabilitated female drug addict. The selected exercises include aerobics, flexibility and endurance activities, which have significance influence in the improvement of physical fitness level.

Physical fitness is a construct that includes several components. In the opinion of Verducci (1990) it is a construct which includes factors such as cardiorespiratory efficiency, dynamic strength, balance, flexibility and so forth.

The President of World's Council on Physical Fitness and Sports according to McGlynn (1993) defined health related fitness as the ability to carry out daily tasks without undue fatigue and with ample energy to enjoy leisure time pursuits and to meet unforeseen emergencies. This definition indicates that fitness is a relative term that has to do with everyday activities. Hence, every individual must meet a minimum level of fitness to lead a healthy and productive life (Casperson, Powell and Christenson, 1985).

Sedentary life style is associated with hypokinetic diseases which is an indication of low level fitness. Sedentary living, which is observed among rehabilitated addicts as a result of the side effects of drug abuse, is not compatible with the design of human body, since the muscular, respiratory and circulatory systems were designed specifically for regular movement.

**TABLE SHOWING THE NEEDS OF FEMALE ADDICTS,  
EXERCISE PRESCRIBED AND TEST TO BE ADOPTED.**

PHYSIOLOGICAL VARIABLES	EFFECT OF DRUG	NEED	EXERCISE PRESCRIPTION	EQUIPMENT	TEST
Circulatory System	(i) High Blood Pressure (ii) Increased Pulse rate (iii) Increased Heart rate.	(i) Reduction in blood pressure. (ii) Decrease in pulse rate and Heart rate	Exercise prescribed consist of physical activities to be performed between 30 – 50 minutes per exercise session, three times in a week for a duration of twelve weeks.	(i) Sphygmomanometer (ii) Stethoscope	Measurement of systolic and diastolic blood pressure, pulse rate and heart rate.
Respiratory System	(i) High breathing rate	More efficient internal respiration (Gas exchange)	Below is an example of an outlined exercise programme to be graded into twelve weeks.	(i) 400m Running Track (ii) Stop Watch (iii) Spirometer	1.5 mile run to determine maximum Oxygen intake
Central Nervous System	Increase in central Nervous System leading to increase in excitation, irritation, euphoria, and alertness.	Regulation of Central Nervous System organs	<u>S/N ACTIVITIES</u> 1. General warm up 2. Lower leg and Heal stretch 3. Arm and trunk stretch 4. Back stretch 5. Brisk pace walk 6. Slow walk 7. Running 100 – 1,100m 8. Game situation (Team games, Racket games) 9. Warm down	<u>DURATION</u> 10mins 2mins 2mins 2mins 2mins 3mins 2-5mins 15mins 5mins	Balance test on a rail.
Muscular System	(i) Muscle twitches (ii) Decreased strength (iii) Poor muscle tone (iv) Lack of endurance (iv) Lack of balance	(i) Increased capillarization of muscle (ii) Increased strength (iii) Muscle tone (iv) Increase in endurance (v) Stability		(i) Chalk dust (ii) Measuring Tape (iii) Dynamometer (iv) Mats	(i) Vertical leg jump for Power (ii) Leg muscle strength test (iv) Press Ups.
Body Composition	(i) Reduced body weight (ii) Reduced fat (iii) Reduced lean body mass	(i) Achieving desired body Weight (ii) Increased lean body mass		Skinfold caliper	Skinfold tests.



<u>S/N</u>	<u>ACTIVITIES</u>	<u>DURATION</u>
1.	General Warm Up	10 mins.
2.	Lower leg and Heel stretch	2 mins.
3.	Arm and Trunk stretch	2 mins.
4.	Back Stretch	2 mins.
5.	Brisk Pace Walk	2 mins.
6.	Slow walk	3 mins.
7.	Running 100m-1,100m	2-5 mins.
8.	Game Situation (Team games, Racket games)	15 mins.
9.	Warm down	5 mins

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### **BENEFICIAL EFFECTS OF STRUCTURED EXERCISE PROGRAMME**

The effects of structured exercise programme as outlined below show the contributions it has on the cardiorespiratory, muscular and body compositions. The type of activity, the frequency, density, duration of the exercise session, age, sex and physical condition of the category of people engaged in the programme determine the degree of change in the above mentioned variables.

The contributions are classified into three:

- (i) Improved cardiorespiratory endurance



- (ii) Improved muscular system function
- (iii) Improved body composition and miscellaneous

(i) Improved Cardiorespiratory Endurance

Cardiorespiratory endurance is the ability of the body to continuously provide oxygen to the working cells while they work for extended periods of time (Jensen, 1977). This depends mainly upon the effectiveness and efficiency of the circulatory and respiratory systems. Activities that stimulate increased use of oxygen transportation and utilization are referred to as aerobic exercises. Benefits related to cardiorespiratory endurance are:

Increased stroke volume

Increased maximum cardiac output

Decreased resting heart rate and smaller increase in heart rate during moderate work.

Increased oxygen utilization during exhausting work

Increased blood volume

Decreased systolic and diastolic blood pressure

Increased coronary circulation

Increased mechanical efficiency of the heart muscle

More rapid return of heart rate and blood pressure to normal following physical activity (Fox and Mathews, 1981).

### Improved Muscular System Function

Muscle condition includes status of strength, endurance and tone. Strength is the ability to exert force against resistance. A reasonable amount of strength can add to individual's ability to deal more effectively with the rigors of everyday life. Benefits relating to improved muscular system include:

Increased muscle size

Increased capillarization and blood supply

More efficient internal respiration (oxygen and carbon dioxide exchanged).

Increased ability to move through full range of movement in various body parts (Thaxton, 1988).

### Improved Body Composition

In the opinion of Carroll (1993), the higher the percentage of body fat, the poorer the person's physical performances. Regular participation will result in:

Reduced overall body weight

Reduced fat weight

Increased lean body mass.

### Miscellaneous

Decreased serum cholesterol and triglycerides

Decreased low-density lipoprotein

Increased high-density lipoprotein

Reduction in anxiety and depression levels

More positive self-concept

Increased overall feeling of well-being

(Gettman, 1988).

In a study conducted by Otinwa (1996) using rehabilitated male drug addicts camped at Adeniji Adele Rehabilitation Centre, Lagos, subjects were placed on structured exercise programme three times in a week for twelve weeks. Health related fitness variables of subjects were measured using pre and post research design. Result of the study indicated that there were positive significant changes in subjects' cardiorespiratory endurance, flexibility, body composition and muscular endurance.

## CONCLUSION

This paper has reviewed the need for structured exercise programme which may help in enhancing fitness level of rehabilitated female addicts. The benefits derived in the exercise have implication for the subject's subsequent productivity in the labour market as well as their integration into the society.

## RECOMMENDATIONS

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The challenges before women scientists include the followings:

- (i) Identification with female drug addicts



- (ii) Ensuring that female addicts and children are given adequate medical treatment and basic social amenities.
- (iii) Active participation in the re-integration of the rehabilitated addicts.
- (iv) More campaign against involvement of female in drug addiction by emphasizing on various drugs of addict and its implication in schools, colleges, higher institution of learning and market places.
- (v) Structured exercise programme should be given priority in rehabilitated female drug addicts integration programme.
- (vi) Women should strive to keep a happy family where separation and divorce will not exist.

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