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Awareness of active recovery among athletes in Karad city

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Abstract

Material and Methodology: Study was conducted with 92 subjects in Karad city. Subjects were selected as per inclusion and exclusion criteria and consent was taken. Both males (52) and females (40) subjects were included for study. Then they were assessed with help of Questionnaire regarding Awareness of Active Recovery then data was collected and analyzed accordingly.

After analyzing the data, active recovery being low intensity workout should also be performed during the rest days of the athlete but according to question no. 9 (what kind of workout do you perform on off day?) it was found that only 19% athletes performed low intensity workout and maximum athletes i.e 34% took complete rest.

There was a decreased awareness regarding Active Recovery among athletes in Karad. Likewise, there was a lack of knowledge about the relaxation techniques need to be performed after training.

Keywords: Active recovery, delayed onset muscle soreness, athletes, fatigue, low intensity workout

1. Introduction

Many sports like Football, Hockey etc. involves physically demanding activities like sprinting, changing in direction and running speed, technical actions such as dribbling shooting and passing. In performing this activity, a decline in performance known as fatigue can occur. In elite soccer, players are frequently required to play consecutive matches interspersed by 3 days and complete physical performance recovery may not be achieved¹. The load of training and inappropriate recovery may stress the player into overload injuries and decrease their performance. During congested schedule recovery strategies are therefore required to alleviate post-match recovery, regain performance faster and reduce the risk of injury^[1]. Competition and training causes repeated eccentric contractions that can lead to muscle damage, tissue inflammation, perceived fatigue and Delayed Onset Muscle Soreness^[2].

The most common effect of exhaustive exercise is the Delayed Onset Muscle Soreness. It is the sensation of pain and stiffness in the muscles that occurs from 1 to 5 days following heavy workout. The performance of athlete depends on an optimal balance of training and recovery^[3]. Such athletes require appropriate recovery after intense training session to decrease the risk of injury and improve their performance. A wide range of recovery methods are now used as integral parts of elite athletes to help attain an optimal balance.

Active recovery is the engagement of low intensity exercise after completing a heavy workout or athletic event. It is a popular approach for enhancing an athlete's recovery from participation through physical actions also it has a perceived benefit in the recovery of athlete's enhancement of post exertion fatigue^[4]. This involves enhancing the rate of blood lactate removal, reducing the severity and duration of exercise induced muscle injury and delayed muscle soreness, restoration of energy level in skeletal muscle, and quicker normalization of performance parameters^[5]. Muscle fatigue is a common symptom during sports and exercise activities but is also increasingly observed as a secondary outcome in many diseases. A reversible loss of muscle force during work overtime is defined as exercise induced muscle fatigue, and can last for a few minutes, hours, or days^[4]. Active recovery increases performance of Athletes exposed to high intensity workout and exercises^[6]. Active recovery is considered to be the most effective forms of post-match recovery^[7]. The effect of Active on exhaustive exercises has been known for more than 30 years^[8].

Based on observations, many Athletes and clubs use the traditional recovery techniques of passive recovery. Awareness of active recovery and its important is less observed in many areas of recovery. This study was carried out to determine the awareness of active recovery among Athletes.

2. Objective

The objective of this was to observe the awareness of Active Recovery among athletes in Karad city.

3. Materials and Methods

This study is cross sectional study undertaken to find out Awareness of Active Recovery among athletes. Athletes with age group of 18 to 30, both male and female athletes were included. Athletes that are currently injured are excluded from the study. Written consent of the athlete was taken. The study is ethically approved. A self-made Questionnaire regarding Awareness of Active recover was used as a study tool.

The sample size was calculated by taken at 64%. Hence for

calculation of sample size $p=64%$ and $q=100-p=36%$ sample size $n=4pq/L$ [2] therefore $n=92$. The simple random sampling is used to select the subjects for study and it is conducted in and around Karad Taluka.

4. Analysis and interpretation of data

The researcher conducted a study to find awareness of active recovery among athletes in Karad city. For the purpose of this study the researcher collected data on 92 adults of Karad City.

4.1 Analysis of data

Data analysis was performed with SPSS version 20.0. P value was obtained and following results were obtained.

4.2 Level of Significance

Based on this study it was found that awareness of active recovery is statistically significant ($p < 0.0001$).

Findings of the statistical analysis have been shown in the following Figure.

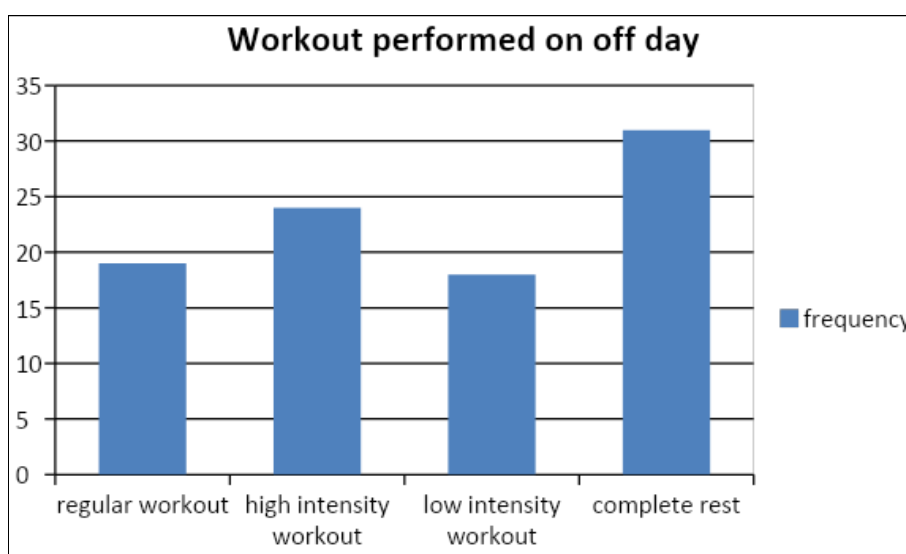


Fig 1: According to the graph 31 athletes took complete rest on off day, 18 individuals performed low intensity workout, 24 athletes performed high intensity workout and 19 athletes performed regular workout.

5. Discussion on findings

The effects of active recovery have been the focus of many researches. Previous studies have been discussing the effectiveness of Active recovery in different aspects, but no study has been carried out regarding the awareness of Active Recovery. It is necessary to find the awareness of Active Recovery among athletes so that maximum athletes are benefited from this technique. This is the first study documenting the awareness of active recovery among the athletes. In this study we have also investigated about various post workout effects such as Fatigue, Muscle soreness and level of stress.

The main finding was a lack of awareness about Active Recovery regime among the athletes. Maximum Non elite and Beginner level athletes were unaware about the concept of Active Recovery. Most athletes experienced high fatigue level as it is a common post training problem. The status of muscle soreness was also observed to be high among maximum athletes. Most of the athletes take complete rest on the off day and do not perform any workout. Athletes playing in team Contact games such as football and Rugby are often prone to have injuries. A proper recovery after the game and training session must be carried out. This may reduce the chances of

muscle fatigue and also injury. Friden J, Sjostrom and colleagues have suggested that damage to the muscle may predispose the muscle to have to more significant injury in future⁷. Most of the athletes in study played a team contact game. The training sessions were performed everyday by many athletes. This also indicates that there was less attention given to the recovery period. The stress factor after the training or a match was also considered. The athletes experienced high

Stress after a match and also training. 35% Athletes from the study had an experience of more than 3 years. Stretching was found to be a common relaxation technique performed by athletes. Other relaxation technique that was included in the study were massage and meditation. 27% athletes did not perform any kind of relaxation techniques. The athletes seemed to have less knowledge about the post workout effects on body.

6. Conclusions

There was a decreased awareness of Active recovery among athletes in Karad city. Likewise there was a lack of knowledge about relaxation techniques need to be performed after training.

7. Limitations and Suggestions

Limitation of the study is that it is performed in a specific area. It can be performed in a large area. Different outcome measures can be used.

8. Ethical clearance

Ethical clearance was taken from institutional committee of Krishna Institute of Medical Sciences, Deemed to be University, Karad.

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