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Study the relationship between overhead front military press with Olympic weightlifting skill clean & jerk performance of male athletes

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Abstract
The aim of this study was to determine the relationship between overhead front Military press with Olympic weightlifting skill Clean & Jerk Performance of University Male Athletes. Male (n=25) (age 17-25) were randomly selected, who had three years training experience in Competitive weightlifting and participated at the state, National, university and college level participated as subjects for the study. The 1RM performance of the Overhead front Military Press was measured for all the subjects. The data of Olympic Weightlifting skill Jerk performance was collected from registered or recognized weightlifting state, University and National competitions. The result provides that Correlation exists overhead front Military press with Olympic weightlifting skill Clean and Jerk Performance of all the subjects (r= 0.86). These result also provide that the overhead front Military press is major contributor to weightlifting skill Clean & Jerk Performance.

Keywords: Olympic weightlifting skill jerk, overhead front military press

Introduction
Olympic weightlifting performance demands the muscle strength, power, speed, agility and balance during the training and competitions. In these sport athletes participated in the different weight categories in two skills Snatch and clean& jerk. Athletes lifted maximum weight in the two skills and the total weight lift by the athlete determine overall winner of the competition. It is evident that whole movement required higher level of specific level of muscles strength for the optimum performance in the competition. Clean and Jerk skill is completed in two Phase, in first athlete lift bar ball with weight with both hand from the platform in single movement and hold in front shoulders, in the second phase athlete push the barbell above the head in a single movement with both elbows straight. The complete movement of Clean and Jerk skill require Coordination, balance, strength and power ability. Weightlifting coaches and athletes try to identify extra training tools as the means to support and strengthen the clean and jerk skill in better way during the training and competitions.
In the Military press the barbell with weight upward movement by straightening the elbows and pushing the barbell toward the overhead until arms are straight. Military press is barbell strength training exercise that works on muscle group in the upper body.
Overhead press is a movement in which resistance is pushed above the head. It also increases strength of triceps, trapezius, oblique's, and transverse abdominal muscles of group.

The purpose of the study
Analysing the relationship between Overhead front Military Press with the Olympic weightlifting skill Clean and Jerk Performance.

Methodology
To achieve the objective, the present study was conducted for Male weightlifting athlete (n=25) age 17-25 years. All the subjects were busy preparing for the participants in University, State, National weightlifting Competitions in different training centers of National Capital Region, Delhi, India from 2015-2018. The discussion was done with the athletes and their coaches regarding the purpose of the study and all are agreed voluntarily to take part in the

study. The Overhead front Military Press test instructions to given to the athlete as they set, volume, repetitions and load was adjusted until they determine the one repetition (1RM) maximum weight that an athlete is able to lift from the squat stands with both the hands.

All the subjects were given 10 minutes for warming up and practice the overhead front Military Press test so that they are familiar with the test and know exactly what was to be done. Procedure was explained to them prior to the administration of the test. All the equipment for the variables used for the study like weightlifting Barbell, Discs, locks platform and squat stands were standardized or recommended by National federation. The weightlifting Skill Clean and Jerk data was collected from Competition record of athletes participated.

Statistical Procedure

'R' Version 4.1.0 Statistical software was used to calculate Person Product Movement Correlation to find out the relationship of overhead front Military Press and Olympic Weightlifting skill Clean and Jerk.

Results

Descriptive statistics for the study of analysis of the relationship between overhead front Military Press with Olympic weightlifting skill performance Clean and Jerk. The Person's Product Movement Correlation was used for the significance of the 0.05 level. The table1 shows the mean and Standard Deviation value of overhead front Military press test and Olympic weightlifting skill performance clean and jerk. The table 2 shows the significant Positive correlation between overhead front Military Press with Olympic weightlifting skill performance Clean and Jerk (r= 0.86), p=.05). Table 1. Shows the Mean and Standard Deviation Scores of Overhead front Military Press tests and weightlifting Skill Performance Clean and Jerk.

Table 1: Descriptive Statistics for 25 Olympic Weight-Lifters

Variables	Over head front Military Press	Olympic Weightlifting Performance Clean and Jerk
Mean	80.36	113.80
Standard Deviation	6.32	8.73

Table 2: Correlation Coefficient for all 25 Olympic Weight-Lifters

Variables Correlated	Coefficient of Correlation (r Value)	N
Over head front Military Press and Weightlifting skill Clean and Jerk	0.86	25

'r' needed for significant at .05 level of Confidence.

It is evident from table 2 that the relationship of over head front Military Press and Weightlifting skill Clean and Jerk was found significantly Correlated.

The relationship of overhead front Military Press and Olympic weightlifting skill Clean and Jerk graphically present in figures 1.

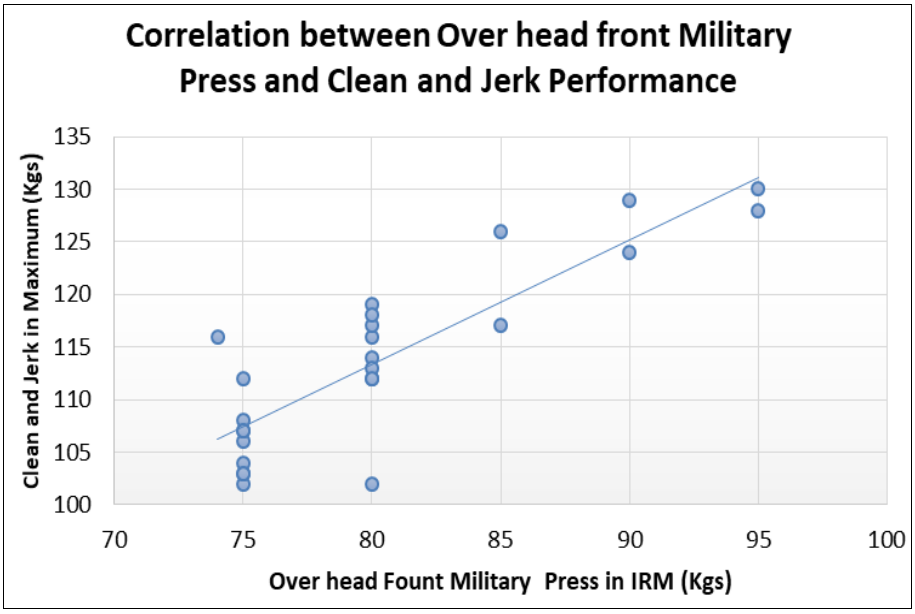

Fig 1: Correlation between Over head front military press and clean and jerk performance

Discussion of findings

In the present study the relationship between independent overhead Variable Front Press with dependent variables weightlifting skills performance Clean and Jerk has shown to be significantly related. These study results have shown that overhead front Military Press is one of the contributing factors for optimum performance in Olympic weightlifting skill Clean and Jerk. In Olympic weightlifting training plan, lifters use overhead front Military Press for improving the upper body muscles power or strength which is helps in Pulling and pushing movements during clean & jerk performance.

As evident from the results, the efficiency of legs muscles power is the main factor for high sporting results in snatch and clean & jerk performance. Similar views are also given by A N Varobyr in this book, 'A Text Book of Weightlifting' Published by international weightlifting Federation (1978).

Conclusion

The study confirmed that the value of Pearson's correlation

between overhead front Military Press with weightlifting skill clean & jerk performance of all (n=25) lifters showed existence of significant relation between overhead front Military Press and weightlifting skill clean & jerk performance. It was concluded that overhead front Military Press (Upper body muscle power) have a significantly positive relationship with the Olympic weightlifting skill clean & jerk performance of male athletes.

Implication of research findings

For the present study, restraint were recognized to understand the relationship between variables overhead front Military Press with weightlifting skill clean & jerk Performance. Although there are many factors that can contribute to the result in weightlifting performance in training and competitions but upper body muscles power exercises as overhead military press is an important contributor to lifters for future training plans.

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