



# International Journal of Physical Education, Sports and Health

P-ISSN: 2394-1685  
E-ISSN: 2394-1693  
Impact Factor (ISRA): 5.38  
IJPESH 2017; 4(6): 159-161  
© 2017 IJPESH  
www.kheljournal.com  
Received: 19-09-2017  
Accepted: 20-10-2017

**Shashikant Pardeshi**  
Research Scholar, Dr. BAMU  
University, Aurangabad,  
Maharashtra, India

**Sunil B Dhondage**  
Research Scholar, Dr. BAMU  
University, Aurangabad,  
Maharashtra, India

## Effect of eight weeks maximum and dynamic effort training program for improving squat press performance

**Shashikant Pardeshi and Sunil B Dhondage**

### Abstract

The purpose of this study was to examining the effect of eight weeks maximum and dynamic effort training program for improving Squat press performance. It was an experimental study in which pre-test & post- test non equivalent groups design was used. 30 male Powerlifters mean of age ( $21.17 \pm 2.15$ ) were selected as sample by using simple random sampling technique ( $N=30$ ) from Aurangabad City. They were equally divided into, Experimental group ( $n=15$ ) and Control group ( $n=15$ ). Maximum Strength 1RM Squat press test was conducted on both the groups & collected obtained data. Result shows that data collected was analyzed by using Descriptive Statistics to see the maximum and dynamic effort training program was useful to improve squat press performance. Further data was analyzed by using Independent 't' test the mean score of experimental group of Squat press was  $M=6.83$  kg ( $\pm 1.65$ ) and control group was  $M=3.83$  kg ( $\pm 1.50$ ) 't' value was 5.19 which shows the significant difference at 0.05 level thus researcher concludes that there was improvement of performance 1RM Squat press of experimental group as compared to control group due to the treatment given.

**Keywords:** Maximum & dynamic effort training program, 1RM Squat press

### Introduction

Strength training is a type of physical exercise specializing in the use of resistance to induce muscular contraction which builds the strength, anaerobic endurance, and size of muscles. When properly performed, strength training can provide significant functional benefits and improvement in overall health and well being, including increased bone, muscle, tendon and ligament strength and toughness, improved joint function, reduced potential for injury, increased bone density, increased metabolism, improved cardiac function. Sports where strength training is central are bodybuilding, weightlifting, powerlifting, strongman, shot-put, discus throw, and javelin throw. Powerlifting is a strength sports that consist of three attempts at maximal weight on three lifts squat, bench press and dead lift. It resemble the sports of Olympic weight lifting as both discipline involve lifting weight in three attempts power lifting evolved from a sports known as "odd lifts". This followed the same three attempt former but used a wider variety of events akin to strongman competition. (Wikipedia of Powerlifting). Powerlifting requires specialized training techniques that are focused on strength and explosive power. Traditional training methods dictated low repetitions with maximal weight. These practices are still true today, however training methods have advanced to include emphasis on explosive power. This may be achieved dynamic exercises which utilize lighter weight and alternating repetition patterns. The squat bench press and dead lift are the three main lifts in competition.

Maximum and Dynamic effort training basically modified version of the upper and lower body strength training for power lifters training scheduled is whole body workout four day splitting workouts plan per week. These types of workout program develop the muscle power of lifter and related skill of powerlifting. (Jim Stoppani 2008 Encyclopedia of Muscle & Strength).

**Correspondence**  
**Shashikant Pardeshi**  
Research Scholar, Dr. BAMU  
University, Aurangabad,  
Maharashtra, India

## Material and Method

### Subjects

Total 30 male power lifters mean of age (21.17±2.15) were selected by simple random technique from, Aurangabad City, and equally divided into 15 each of experimental & control group.

### Selection of Variable

The study was taken to pinpoint the maximum strength variables. Therefore, based on literary evidence and scholars own understanding the following variable was selected for the purpose of this study 1RM Squat press.

### Procedure of the Study

The researcher had selected the subjects for the study was 30 male powerlifters from Aurangabad city and were divided into experimental and control group. Instruction was given to powerlifters before pre test about the test. The test includes i.e., Squat press 1RM test which was conducted to the selected sample. Before taking pre test 10 minute warm up was given to both group. eight week maximum and dynamic effort training program was administered on the experimental group to follow FITT formula was used & progression of exercise load was increased in every week as per subject's adaptation, and control group was doing their regular workout. After the completion of eight weeks maximum and dynamic effort training program, post-test was conducted

**Table 3:** Comparison between changes in performance of Squat press using Independent sample Test

Test	Pre-test (M)	Post-test (M)	Mean Difference	't' value	DF	Sig (2 tail)
Experimental group	98.7	105.6	3.00	5.19	28	0.001
Control group	82.6	86.4				

It was further concluded that in the further study experimental group score of squat press was M=6.83 kg (±1.65) kg was superior to control group M=3.83 kg (±1.50) kg where 't' value was 5.19 which is statistically significant at 0.05 level it is observed that there is improvement of performance 1RM squat press of experimental group in comparison to control group due to the treatment given to it which is significant. (p=0.001)

### Discussion

O' Shea and Wagner, (1981) [8] Studied the effect of weight training program on maximum strength 1RM Bench press and 1RM Squat in thirteen male and thirteen female lifters. This study was designed to evaluate the effect of six weeks weight training program on squat and bench press the results shows that 1RM Bench and Squat was significantly improve the 1RM performance so may be recommended the weight training program improve maximum strength.

It was observed from the findings that the Tianaweiss, Jerica (2010). Studied the effect of resistance training program on muscular strength 1RM Deadlift and Squat in 38 lifters. This study was designed to evaluate the effect of functional resistance training on muscular fitness the results shows that 1RM deadlift & 1RM squat were significantly improve performance so may be recommended the resistance training program improve maximum strength. Hence the null hypothesis there is no significant effect of maximum & dynamic effort training program on maximum strength was rejected. And there for set hypothesis that there was significant effect of maximum and dynamic effort training program on squat press performance of powerlifters is accepted.

using same procedure the data collected was analyzed and results were drawn.

### Statistical Techniques

Descriptive statistics is used for data analysis the researcher collected the data by training pre-test & post-test to know the difference between the control group and experimental group using Independent sample t-test was used for statistical analysis.

### Result of the Study

**Table 1:** Experimental & Control pre-post test Descriptive statistics

Group		Squat Press	
		Pre-test	Post-test
Experimental group	N	15	15
	Mean	98.7	105.6
	SD	12.2	12.8
Control group	N	15	15
	Mean	82.6	86.4
	SD	8.2	8.4

**Table 2:** Descriptive statistics Change in performance of Squat press

Group	N	Mean	SD
Experimental group	15	6.83	1.65
Control group	15	3.83	1.50

### Conclusion

On the basis of the result obtained in the study the researcher made the conclusion that the eight weeks maximum & dynamic effort training program has significant effect on maximum strength of improvement of squat press performance. From the finding of the study further conclusion was made. After treatment to the experimental group it was observe that there was improvement of performance 1RM squat press of experimental group in comparison to control group due to the treatment given to it which was significant.

### References

1. Kansal DK. Applied measurement evolution & sports selection, DVS publication New Delhi, 2008.
2. Patil S. effort of six week mixed cross training on speed & explosive strength of junior level male sprinters. Unpublished Dissertation University of Pune, 2010.
3. Berger RA, and Harris, Michael W. effect of various repetitive rates in weight training on improvement in strength and endurance, 2001.
4. Capen Edward K. The Effect of Systematic weight training on power, strength, and Endurance. Research Quarterly, 1990, 21.
5. Pollock RLML. Circuit weight training; a critical review of its physiological benefits. The physician & sports medicine. 1981; 9(1):44-60.
6. Murtaza A. Effect of core training on selected physical fitness components. (Dept of physical education university Pune), 2012.
7. Stone ML, Flleck SJ, Tripplett NT, Kramer WJ. Health & performance related potential of resistance training. Sports medicine, 1991.

8. O' Shea, Wagner. Studied the effect of weight training program on maximum strength 1RM Bench press and 1RM Squat in thirteen male and thirteen female lifters, 1981.
9. Jerica Tianaweiss. Studied the effect of resistance training program on muscular strength 1RM Deadlift and Squat in 38 lifters, 2010.