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A STUDY OF EFFECT OF YOGIC EXERCISES ON PHYSICAL FITNESS OF MAHARASHTRA STATE' POWERLIFTING PLAYERS

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ABSTRACT

This paper discusses the effect of yogic exercises on physival fitness of Powerlifiting players. The analysis of data gathered from research samples. The variations in physical fitness and yogic parameters of powerlifting players in connection to pre-test, post-test, & adjusted post-test scores were examined in three groups: physical exercise, Yogic Practices, and control groups. To meet the current study's goal, 60 powerlifting players were chosen at random as participants, ranging in age from 14 to 16 years. As a consequence, the collected data were properly interpreted with previous research and reported in this paper along with graphical representations. The result findings on physical variables show that the physical exercises group had a greater impact than the Yogic Practices group. It was determined from this that owing to similarities in physical training, there are opportunities to build physical variables.
KEYWORDS: Physical education, Yoga, Physical fitness and Powerlifiting players,

INTRODUCTION

Yoga comes from the Sanskrit language. It refers to joining or unification. Yoga is the science that deals with the appropriate coordination of the three components, namely body, mind, and soul, for a specific goal. Yoga is a living science that aims to bring out the best in people by enabling and equipping them to live calm and joyous lives. (Yogiraj Vethathiri Maharishi) It is the skill of comprehending all about the soul, the life-force, and grasping its link to the body, the world, and the universe. It is the skill of remaining in harmony with one another before eventually uniting with the global soul. Yoga is a systematic spiritual exercise for increasing consciousness, developing willpower, and realising oneself. Yoga is a technique that makes a man whole by developing his personality so that he can achieve his ultimate life objective. Yoga is the self-realization of the union of self, Athman, or individual being with cosmic being. (P.1. James Hewit, (2000)

Physical fitness, a complicated component, is defined as "any individual's capacity to accomplish his everyday responsibilities with ease and without excessive weariness at a significantly quicker rate." Sports performance is heavily reliant on physical fitness, which includes strength, speed, endurance, flexibility, and a variety of coordinative qualities. Sports are physical activities that cannot be performed without these motor talents. As a result, the primary goal of sports training is to develop physical fitness or motor ability. Conditioning is another term for the process of improving motor ability. Physical fitness enhancement also includes improving overall health and biological functioning, as well as enhancing the strength and stability of the musculoskeletal system. Physical fitness may be divided into two categories: general and particular. Each sport requires a distinct set of motor talents, and when a sportsman possesses these, he is considered to have the appropriate physical fitness. General physical

fitness is the amount of diverse motor talents that an athlete possesses, independent of sport. The role of overall physical fitness in sports performance is indirect. However, it should never be forgotten that particular physical fitness is heavily dependent on overall physical fitness.

Being an excellent athlete necessitates a mix of technical and tactical abilities, physical capabilities, and tremendous stores of psychological and emotional power. Long-term planning, consistency, and dedication from those engaged in sports with a single aim of improving performance are required for success. Today's greatest players had all been carefully fostered since they were teens, or in some cases, youngsters. They had been recognized as genetically endowed and suitably skilled, and had then been nurtured and gradually exposed to training and a competitive atmosphere targeted primarily at developing them into top adult performers.

There is now a greater body of understanding about players, which is reflected in training technique. The training process yields physiological, biochemical, psychological, social, and methodological data. All of this various information is generated by the athlete and the training process. The coach who creates the training procedure may not always be able to evaluate it. However, we must examine all input from the training process in order to understand the athlete's reaction to training quality and effectively organize future programs (Bompa, 2009).

All future programs aiming at boosting athlete performance, particularly in the discipline of powerlifting, will emphasize strength development. The force or torque created during a voluntary contraction under a certain set of parameters is commonly referred to as strength. Key characteristics include posture, movement type (single-joint versus complicated multijoint), contraction type, and movement velocity. Strength attributes may be broadly classified into static, concentric, and eccentric types of contraction. Many different training approaches are used to develop this strength. Resistance training is the most widely used and successful strategy (Gamble, 2013).

The number of players capable of producing great achievements is continually rising. Many factors have contributed to this tremendous change. One explanation is that, since athletics are a difficult area, great motivation has fostered long, hard hours of effort. Coaching has also gotten more complex as a result of the aid of sport professionals and scientists.

The phrase physical fitness components refers to several fundamental components necessary to facilitate great overall fitness. In most traditional circles, there are five general components of fitness: cardiorespiratory endurance, muscular strength, muscular endurance, flexibility, & body composition (George Fevertein and Stephan Bodian et al1979) (Yogiraj Vethathiri Maharishi 1994) (P.1. James Hewit), though healthy body composition is frequently a byproduct of other components and is thus not recognized as an actual "component" of fitness in some circles. Following five broad components of fitness are "motor" fitness components, which have the greatest impact on athletic performance. Muscular power, speed, balance, coordination, precision, & agility are examples. Some regard response time to be a component of motor fitness,(Krishna Bahadur. P.,) while others believe it is a form of speed, i.e. "reaction speed." Conditioning/training leads to gains in endurance, stamina, strength, & flexibility. Training is defined as any exercise that enhances performance by inducing observable biological changes in the body. Concurrently, practice leads to increases in coordination, agility, balance, & accuracy. Practice is defined as any action that enhances

performance by causing changes in neurological system. Power and speed are adaptations to training as well as practice.

Each of fitness components contributes to the body's capacity to withstand physical demands. The higher the degree of fitness, the more efficiently the body operates. Optimal fitness is a mix of lifestyle, diet, and habits, but it cannot be achieved without sufficient physical exercise. Optimal physical performance is a synthesis of all fitness components; depending on unique demands of sport or activity, certain components will require more attention than others, but all should be present as part of an integrated training program.

In today's society, maximum conveniences and facilities are offered to promote comfort and happiness in life. But man is not psychologically serene, and he continues to need more and more, never satisfied, regardless of the level of intelligence acquired. This is due to the man's belief that happiness derives from the outside world. The investigator believes that yoga and physical workouts are the only remedies to this problem, and that yoga and physical exercises should be stressed in order to make life meaningful and goal-achieving, and therefore the researcher did this study. In an increasingly stressful culture, almost everyone believes that means of health and well-being. Yoga and physical exercise are essential for improving the performance of powerlifting players. As a result, an attempt was made to determine the extent to which yogic exercises on physical fitness and psychological profile are required to improve the performance of powerlifting players. As a result, the investigator attempted to investigate the effect of yogic exercises on physical fitness of maharashtra state' powerlifting players.

OBJECTIVES OF THE STUDY

- To find out effect of Yoga exercise on selected Physical variables.

HYPOTHESES OF THE STUDY

- There may be a substantial difference b/w pre-test & post-test physical fitness components of powerlifting players in the control and yogic exercise groups.
- There may be a substantial difference in the post-test performance of powerlifting players' physical fitness components between the control group and the yogic exercise group.

LITERATURE REVIEW

Tiana (2010) conducted a study to determine efficacy of functional training versus traditional resistance training. The study's goal was to see if functional training had the same effects on muscular strength & endurance, flexibility, agility, balance, & anthropometric measures as traditional resistance training. These findings imply that both regimens are equally useful for boosting endurance, balance, & conventional strength measurements. Changes in girth, torso flexor endurance, and flexibility, on the other hand, appear to be program-specific.

C. S. Chong et al. (2011) conducted a comprehensive study and critical evaluation of the efficacy of yoga on stress management in healthy individuals. The systematic review was based on eight RCTs and CCTs that found yoga to have a favorable effect on stress levels or stress symptoms. This study discovered that yoga had a favorable effect on stress reduction in healthy

adult populations. However, because of small number of studies & the related methodological issues, the results should be regarded with care. More research should be done to determine yoga's long-term benefits and the underlying biological mechanisms that lead to its stress-reduction impact.

Kaitlyn P. Roland et al. (2011) study if yoga practice improves physical fitness and function in older persons. A thorough search found 507 papers, of which 10 trials with 544 participants (69.6 6.3 yr, 71% female) were considered. The wide range of yoga methods and measuring outcomes makes interpreting results across research difficult.

Song et al. (2012) evaluated the effect of progressive resistance training (PRT) on hemodialysis patients' body composition, physical fitness, quality of life, lipid & nutritional profiles (HD). Body composition, physical fitness, quality of life, and lipid profile were the outcome metrics studied. In the exercise group, skeletal muscle mass, grip strength, leg muscular strength, and quality of life all increased considerably. The exercise group had significant reductions in body fat, total cholesterol, & triglyceride levels. These findings imply that PRT improves the body composition, physical fitness, quality of life, and lipid profile of HD patients. PRT with elastic bands & sandbags can be used as part of these patients' usual care regimen.

Gina K.Alexander et al. (2013) conducted a research using participants from trials investigating impact of an Iyengar yoga curriculum on risk of cardiovascular disease. The current study sought to assess reported advantages of yoga in a group of older, primarily overweight persons enrolled in a mild 8-week yoga programme.

D.B.Y.Fontein et al. (2013) study on survivability has been studied retrospectively in various big clinical studies. PA has been demonstrated to increase quality of life, fitness, & strength, as well as to alleviate depression and weariness. There is now a growing amount of information on effects of PA treatments on health outcomes in cancer survivors. In the elderly, PA and functional impairments are linked. However, association b/w breast cancer survival & PA in older breast cancer patients has not been well studied.

Joao GA et al. (2014) studied the effect of 16 weeks of periodize resistance training on powerlifting competitors' strength improvements. The study's goal was to see how 16 weeks of periodized resistance training affected the strength gains of 9 professional powerlifting competitors (male, 34.5 5.0 years, 175.2 7.8 cm, 94.4 16.7 kg). The 1RM test was used to determine strength ratings, which were then divided into five stages (AS): AS1 - initial assessment before beginning periodized training; AS2 - end of first 4-week mesocycle and beginning of second mesocycle; AS3 - end of second 4-week mesocycle and beginning of third mesocycle; AS4 - end of third mesocycle and beginning of fourth mesocycle; and AS5 - end of fourth 4-week mesocycle. Muscle strength was measured using squat, bench press, and dead lift exercises. Strength increased significantly in all exercises & assessments as compared to pre-training levels ($P \leq 0.05$).

Peer-reviewed papers on yoga, meditation, mindfulness, obesity, and overweight were identified by Adam M. Bernstein et al. (2014). Yoga and weight reduction studies are hampered by small sample numbers, short durations, and a lack of control groups. Furthermore, there is minimal consistency in the duration of formal group yoga practice sessions, the duration of unstructured home practices, and the frequency of both. maintenance.

Marcos de Souza Moura et al. (2015) investigated antidepressant effects of exercise on depressive symptoms, & & other 30.7 percent of studies improved only in general physiological aspects, such as increased oxygen uptake, increased blood glucose use, & decreased body fat percentage, with no improvement in depressive symptoms. 71.4 percent of the participants in the study were women, and 85 percent had mild to moderate depression, while only 15 percent had moderate to severe depression.

Ramajayam Govindaraj et al. (2016) investigated the similarities and differences between yoga & physical exercise in terms of ideas, potential processes, & health benefit efficacy. A narrative review is conducted based on traditional & modern yoga literature, as well as scientific publications on yoga & exercise, including head-to-head comparison trials w

Liu, Chiung-ju, et al. (2017) examine data on muscular strength, physical functioning, daily activities, and falls. From 22 systematic reviews, 23 studies were found to be eligible. The study participants' average age was 75 years or older. Muscle strengthening and balance exercises were included in almost all multimodal exercise trials.

Nicole Butterfield et al. (2017) investigate the function of yoga in anxiety & depression treatment, the development of mindfulness & self-compassion, and the implications for mental health care delivery & mental health professionals, with a special focus on nursing practice. There is empirical data to support the use of yoga as an adjuvant or combination treatment for stress, anxiety, & depression management.

Shilpa Dogra et al. (2018) review the research on the links between physical activity, sedentary time, and fitness and stress, depression, and anxiety in postsecondary students. From 2000 to 2016, we did a systematic evaluation of the literature and searched four databases. In all, 1942 publications were reviewed, 22 of which were critically rated, and five of which had a low or moderate risk of bias; all were cross-sectional studies.

Rita B.Domingues (2018) investigates the impact of contemporary postural yoga (with a significant emphasis on physical postures) on PMH markers in clinical and nonclinical groups. Mindfulness, affect, resilience, and well-being were the most prevalent PMH markers, followed by life satisfaction, self-compassion, empathy, and others. Across the 14 research examined, results ranged from considerable beneficial benefits of yoga practice on outcome variables to no significant effects, both in regard to baseline levels & in reference to control groups.

Analysis of the incidence & kind of injury among German top powerlifters by Thomas Reichel et al (2019). A retrospective assessment on acute & overuse injuries was conducted by n = 57 competitive athletes from German powerlifting organization. With 224 total injuries, the mean incidence was determined to be 1.51 per 1.000 h or 0.49 per year. The lower back (20.5 percent), elbow (11.2 percent), pelvic region (10.3 percent), & shoulder were most often injured areas (9.8 percent). Acute inflammation (25.9 percent), muscular strains/sprains (20.5 percent), & skin lesions (13 percent) prevailed in terms of injury type. The mean incidence decreased dramatically as the athlete's age and training experience increased. Athletes that used a bench press shirt and other regenerating therapies such as saunas or swimming also had lower injury rates. There was no significant relationship b/w body weight, height, or gender & the occurrence of injuries.

S Sivasankar and V Vallimurugan (2019) investigate the impact of yoga practices and physical workouts on several physical and physiological characteristics in Information

Technology professionals. The ANCOVA was used to determine if there was a significant difference in each criteria variable between groups. Since three groups were compared, anytime the 'F' ratio for the adjusted post-test means was found to be significant, Scheffe's post hoc test was employed to discover any paired mean differences. The study's findings indicated that yogic practices and physical exercise groups significantly improved on selected physical & physiological indicators as compared to control group.

Mr Sangappa Heggonda and K Sundar (2020) investigate the influence of yoga, meditation, and brain training activities on chess players' self-confidence. To meet the current study's goal, eighty chess players from Alagappa university affiliated colleges in Tamilnadu, India, were chosen at random as participants. Their ages varied from 18 to 25 years. The analysis revealed that there were significant differences b/w the experimental groups, indicating that brain training exercises group performed significantly better than the yoga training group, meditation training group, and control group in improving the self-confidence of the Alagappa university affiliated colleges inter-collegiate chess players.

Sharma M, Kumar S, Chavan B S. (2021) investigated the effect of yoga and physical workouts on overweight children with ID. In both groups, the findings showed a substantial reduction in waist circumference and blood pressure, as well as an increase in the value of high-density lipoprotein and a decrease in the value of LDL.

Arias A.Davis et al. (2021) reviewed 84 articles across four decades of research on physical therapies for trauma and stressor-related diseases in order to 1) explain the state of the field and 2) synthesize the best available evidence. The reviewed studies were reported in terms of sample characteristics & results. The intervention content and research design were used to examine treatment effect patterns.

COMPUTATION OF ANALYSIS OF COVARIANCE

The individuals were chosen at random, but the groups were not equal in regard to the characteristics to be evaluated, therefore the difference in means between the two groups in the pre-test had to be included during the analysis of post-test variations in means. This was accomplished through the use of covariance analysis, in which the post-means were adjusted for changes in the pre-means and the corrected means were assessed for significance. As a consequence, the collected data were properly interpreted with previous research and reported in this chapter along with graphical representations.

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TABLE- 1 DESCRIPTIVE ANALYSIS OF PRE, POST-MEAN AND INCREASE OF MEAN VALUES FOR POWERLIFTING PLAYERS

	PHYSICAL EXERCISES GROUP			YOGIC PRACTICES GROUP			CONTROL GROUP		
	PRE-MEAN	POST-MEAN	INCREASE OF MEAN VALUE	PRE-MEAN	POST-MEAN	INCREASE OF MEAN VALUE	PRE-MEAN	POST-MEAN	INCREASE OF MEAN VALUE
Leg explosive power	1.9	2.7	0.8	1.9	2.4	0.5	1.9	1.91	0.01
Cardio respiratory endurance	1100.9	1191.1	90.2	1091.7	1214.1	122.4	1088.2	1115.9	27.7
Speed	7.4	7.1	-0.3	7.5	7.1	-0.4	7.42	7.4	-0.02
Agility	14.2	12.3	-1.9	14.3	12.2	-2.1	14.9	14.8	-0.1

GROUP ON CRITERION MEASURES

The above table showed that the mean scores of leg explosive power among powerlifting players pre-test in control group is 1.9 then in the post-test is 1.91. Further, it is noted that the mean of leg explosive power among powerlifting players pre-test in physical exercise group is 1.9 then in the post-test is 2.7 Next, it is noted that the mean leg explosive power among powerlifting players pre-test in yogic group is 1.9 then in the post-test is 2.4. This showed that there is a difference between control group, physical exercise group & yogic group in leg explosive power among powerlifting players.

The above table focused that the mean scores of cardio respiratory endurance among powerlifting players pre-test in control group is 1088.2 then in the post-test is 1115.9. Further, it is noted that the mean of cardio respiratory endurance among powerlifting players pre-test in physical exercise group is 1100.9 then in the post-test is 1191.1 Next, it is noted that the mean cardio respiratory endurance among powerlifting players pre-test in yogic group is 1091.7 then in the post-test is 1214.1. This showed that there is a difference between control group, physical exercise group & yogic group in cardio respiratory endurance among powerlifting players.

The above table inferred that the mean scores of Speed among powerlifting players pre-test in control group is 7.42 then in the post-test is 7.4 Further, it is noted that the mean of Speed among powerlifting players pre-test in physical exercise group is 7.4 then in the post-test is 7.1 Next, it is noted that the mean Speed among powerlifting players pre-test in yogic group is 7.5 then in the post-test is 7.1. This showed that there is a difference between control group, physical exercise group & yogic group in Speed among powerlifting players.

The above table examined that the mean scores of Agility among powerlifting players pre-test in control group is 14.9 then in the post-test is 14.8 Further, it is noted that the mean of Agility among powerlifting players pre-test in physical exercise group is 14.2 then in the post-test is 12.3 Next, it is noted that the mean Agility among powerlifting players pre-test in yogic

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group is 14.3 then in the post-test is 12.2 This showed that there is a difference between control group, physical exercise group & yogic group in Agility among powerlifting players.

From the above table, it is indicated that the increase of mean value between pre and post test on leg explosive power among control group is 0.01, physical exercise group is 0.8 and yogic group is 0.5. The increase of mean value for leg explosive power in physical exercise group is greater than the yogic and control group. The increase of mean value in cardio respiratory endurance among control group is 27.7, physical exercise group is 90.2 and yogic group is 122.4. The increase of mean value for cardio respiratory endurance in yogic group is greater than physical exercise & control group. The decrease of mean value between pre & post test on speed timing among control group is 0.02, physical exercise group is 0.3 and yogic group is 0.4. The decrease of mean value for speed timing in yogic group is greater than physical exercise & group. The decrease of mean value in agility timing among control group is 0.1 physical exercise groups is 1.9 and yogic group is 2.1. It is also explored that the decrease of mean value in the yogic group is greater than the other two groups. It is implied that the yogic exercises among powerlifting players improve the motor ability components.

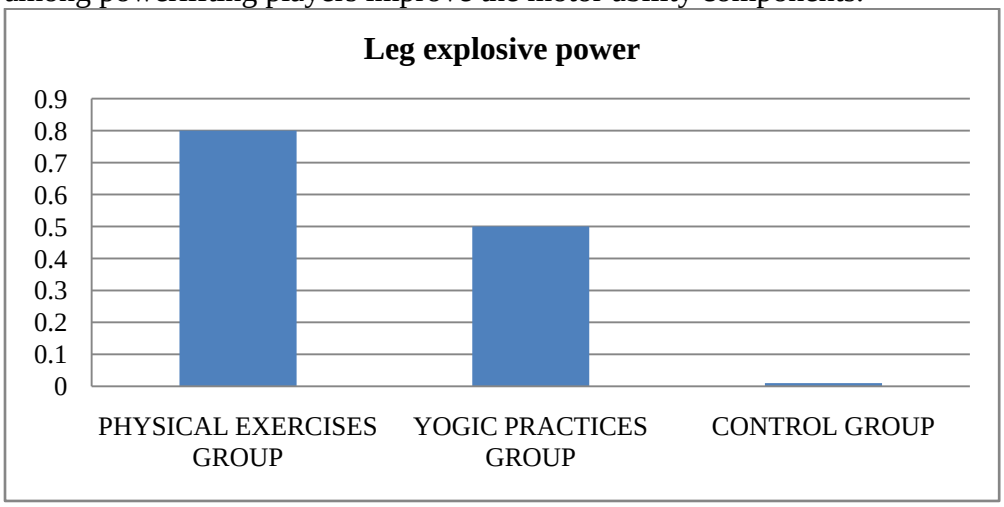

FIG-1 DIAGRAM SHOWING INCREASE OF MEAN VALUES OF PHYSICAL, YOGIC PRACTICES AND CONTROL GROUP ON LEG EXPLOSIVE POWER

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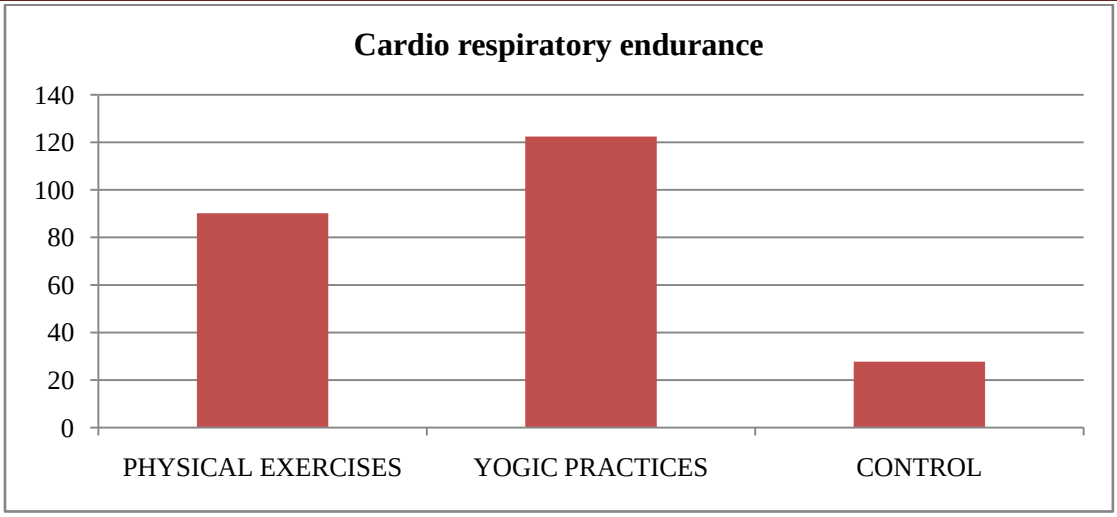

FIG-2 DIAGRAM SHOWING THE INCREASE OF MEAN VALUES OF PHYSICAL, YOGIC PRACTICES & CONTROL GROUP ON CARDIO RESPIRATORY ENDURANCE

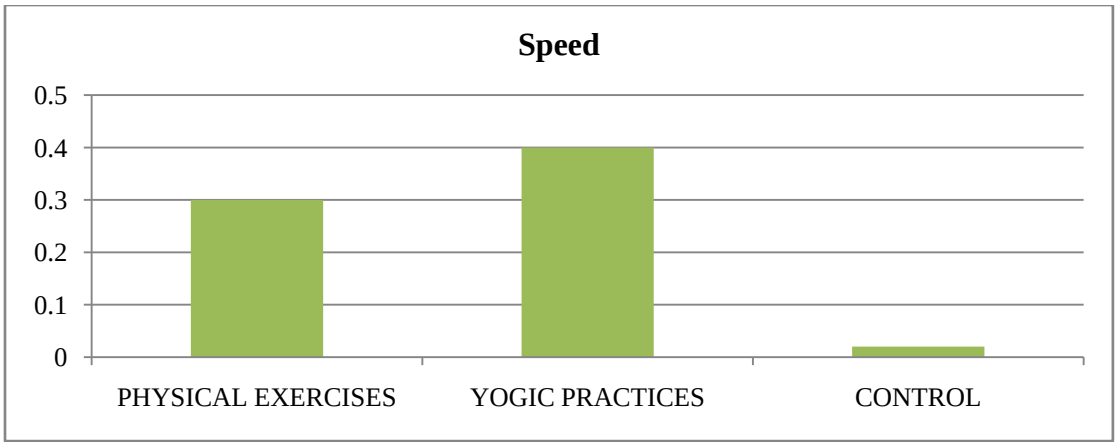

FIG-3 DIAGRAM SHOWING THE DECREASE OF MEAN VALUES OF PHYSICAL, YOGIC PRACTICES AND CONTROL GROUP ON SPEED

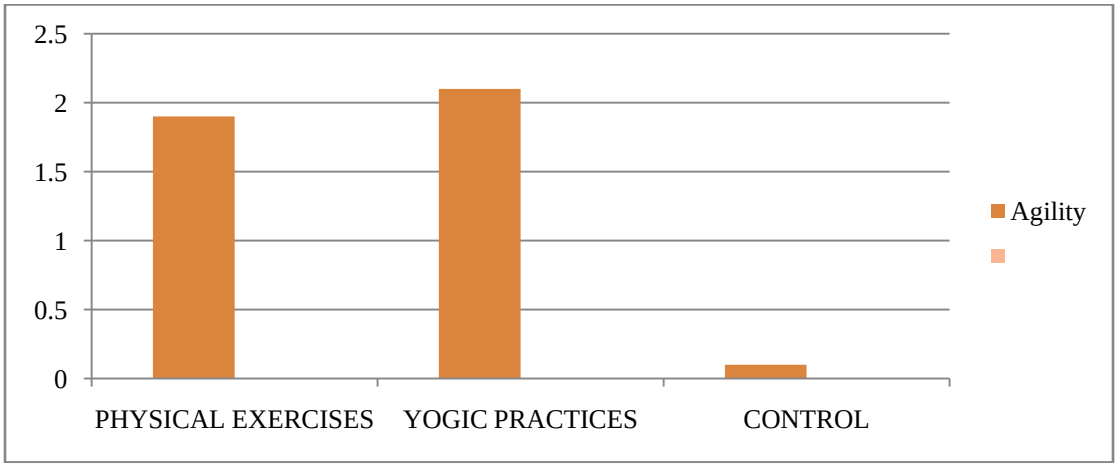

FIG-4 DIAGRAM SHOWING THE DECREASE OF MEAN VALUES OF PHYSICAL, YOGIC PRACTICES AND CONTROL GROUP ON AGILITY

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TABLE- 2 DESCRIPTIVE ANALYSIS OF INITIAL, FINAL & ADJUSTED MEANS OF PHYSICAL EXERCISE & YOGA PRACTICES AND CONTROL GROUP ON CRITERION MEASURES

VARIABLE	PHYSICAL EXERCISES GROUP			YOGIC PRACTICES GROUP			CONTROL GROUP		
	PRE-MEAN	POST-MEAN	ADJUSTED MEAN	PRE-MEAN	POST-MEAN	ADJUSTED MEAN	PRE-MEAN	POST-MEAN	ADJUSTED MEAN
Leg explosive power	1.9	2.6	2.5	1.9	2.1	2.1	1.9	1.9	1.9
Cardio respiratory endurance	1100.8	1191.2	1224.8	1091.6	1214.2	1266.7	1088.3	1115.8	1113.3
Speed	7.4	7.1	7.0	7.5	7.1	7.1	7.4	7.4	7.4
Agility	14.1	12.2	12.1	14.2	12.1	12.2	14.9	14.9	14.9

The table implied that the adjusted post test mean values of speed for control group, physical exercise group & yogic group were 1.9, 2.5 and 2.1 respectively. The table also indicated that the adjusted post test mean values of cardio respiratory endurance for control group, physical exercise group and yogic group were 1113.3, 1224.8, and 12266.7 respectively. It also explored that the adjusted post test mean values of speed for control group, physical exercise group & yogic group were 7.38, 7.0 and 7.1 respectively. It also examined that the adjusted post test mean values of agility for control group, physical exercise group and yogic group were 14.9, 12.2 and 12.1 respectively. It also explored that the adjusted post test mean values of anxiety for control group, physical exercise group & yogic group were 23.4, 20.4 and 19.8 respectively. It is also adjusted post test mean values of self-concept for control group, physical exercise group and yogic group were 118.5, 1280.8 and 134.2 respectively.

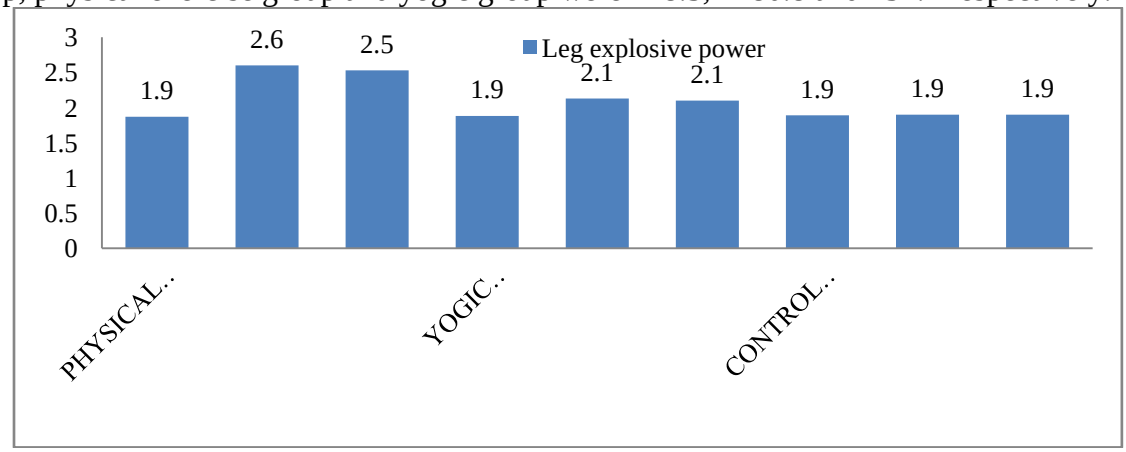

FIG-5 DIAGRAM SHOWING MEAN VALUES OF PHYSICAL, YOGIC PRACTICES & CONTROL GROUP ON LEG EXPLOSIVE POWER

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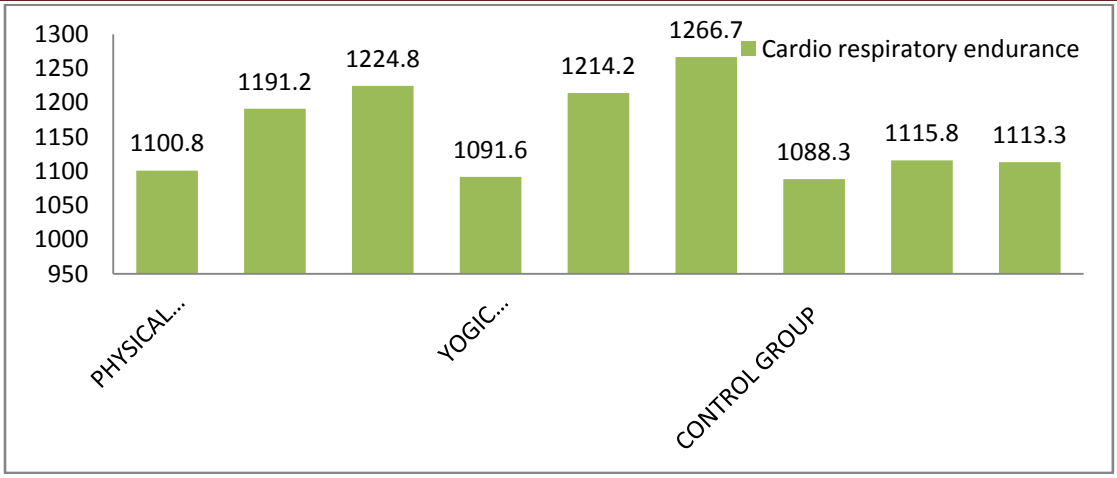

FIG-6 DIAGRAM SHOWING MEAN VALUES OF PHYSICAL, YOGIC PRACTICES & CONTROL GROUP ON CARDIO RESPIRATORY ENDURANCE

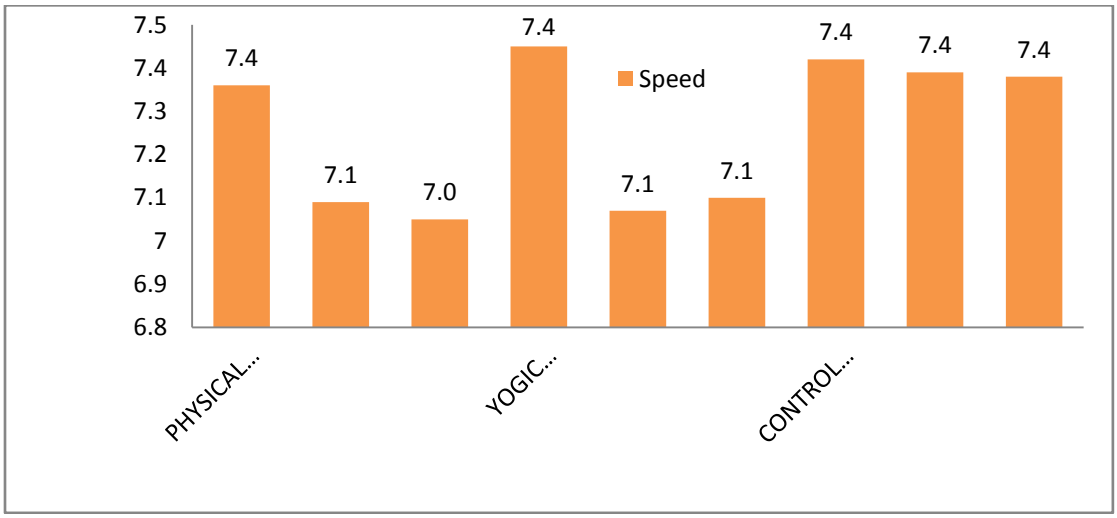

FIG-7 DIAGRAM SHOWING MEAN VALUES OF PHYSICAL, YOGIC PRACTICES AND CONTROL GROUP ON SPEED

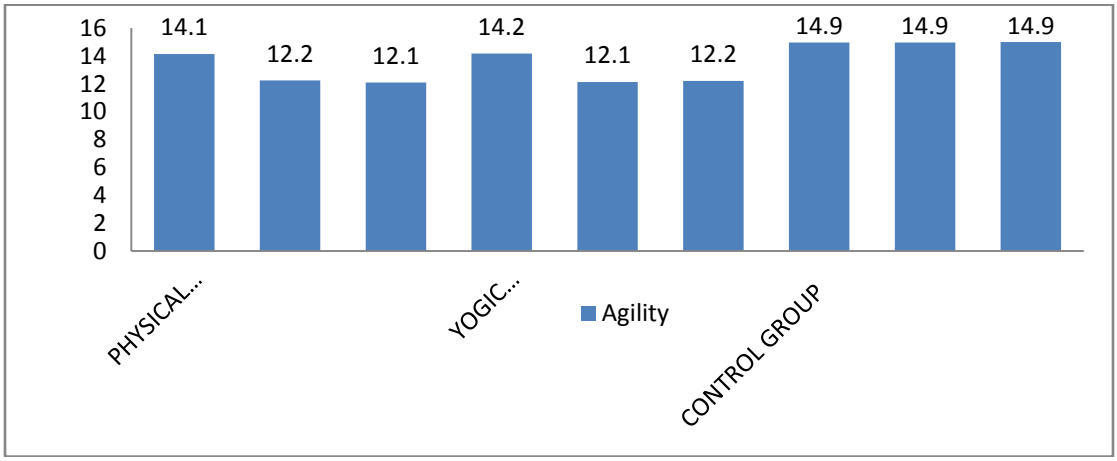

FIG-8 DIAGRAM SHOWING MEAN VALUES OF PHYSICAL, YOGIC PRACTICES AND CONTROL GROUP ON AGILITY

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TABLE –3 SUMMARY OF ANALYSIS OF VARIANCE FOR FINAL MEANS AMONG PHYSICAL EXERCISE & YOGA PRACTICESAND CONTROL GROUP ON CRITERION VARIABLES

VARIABLES	SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARES	F – VALUE
Leg explosivepower	Between Sets	0.44	2	0.22	10.8*
	Within Sets	0.88	42	0.02	
Cardio respiratory endurance	Between Sets	473.5	2	2361.8	18.0*
	Within Sets	25318.42	42	294.4	
Speed	Between Sets	0.9	2	0.5	15.8*
	Within Sets	1.25	42	0.03	
Agility	Between Sets	31.4	2	15.7	36.2*
	Within Sets	18.2	42	0.43	

Table 3 shows the F-value obtained from testing the final averages among the three groups on the criteria measures; the corresponding 'F' values required for significance at the 0.05 level of confidence were 3.2. The calculated 'F' values are leg explosive power (10.8), Cardio Respiratory endurance (18.0), speed (15.8), agility (36.2), anxiety (6.7), self concept (8.7). Because obtained F-values were more than needed table value of 3.21 at 0.05 level of confidence, observed mean difference on criteria measures between the physical workouts, Yogic Practices, & control group was statistically significant.

TABLE – 5.4 SUMMARY OF ANALYSIS OF VARIANCE FOR ADJUSTED MEANS AMONG PHYSICAL EXERCISE AND YOGA PRACTICES & CONTROL GROUP ON CRITERION VARIABLES

VARIABLES	SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARES	F –VALUE
Leg explosive power	Between Sets	0.45	2	0.22	10.4*
	Within Sets	0.88	41	0.022	
Cardio respiratory Endurance	Between Sets	473.5	2	2361.84	23.5
	Within Sets	25318.42	41	294.4	
Speed	Between Sets	0.93	2	0.46	21.08*
	Within Sets	0.9	41	0.02	
Agility	Between Sets	33.33	2	16.66	44.53*
	Within Sets	15.34	41	0.37	

Table 4 shows F-value obtained from testing adjusted averages on the criteria measures among 3 groups; equivalent 'F' values required for significance at the 0.05 level of confidence were 3.22. The calculated 'F' values are leg explosive power (10.38), cardio respiratory endurance (23.48), speed (21.08), agility (44.53),. Because the obtained F-values were more than the needed table value of 3.22 at 0.05 level of confidence, observed mean difference on criteria measures between the physical workouts, Yogic Practices, and control group was statistically significant. It is clear that the treatments utilized in the study had an impact on the criteria measurements. Because the observed difference in mean across the three groups was statistically

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significant. The Scheffe post-hoc test was used to determine which of the two groups grew up for the significant difference. Table 5.5 shows the outcomes of the experiment.

SCHEFFE'S POST-HOC TEST

F ratios were found to be significant in all of variables studied. Scheffe's post hoc test was used to determine significance of difference b/w all possible pairs of adjusted final group averages. The results of Scheffe's post hoc test are shown in tables below.

TABLE –5 SCHEFFE'S TEST OF SIGNIFICANCE B/W PAIRED FINAL ADJUSTED MEANS FOR PHYSICAL VARIABLES

PHYSICAL VARIABLE	PHYSICAL VARIABLE			MEAN DIFFERENCE	CI VALUE
	PHYSICAL EXERCISE	YOGIC PRACTICES	CONTROL		
Leg explosive power	2.13	2.10	-----	0.03	
	2.13	-----	1.90	0.23*	
	-----	2.10	1.90	0.20*	0.13
Cardio respiratory Endurance	1224.8	1266.7	----	41.9	
	1224.8	----	1113.3	111.5*	
	-----	1266.7	1113.3	153.4*	52.31
Speed	7.05	7.10	----	0.05	
	7.05	----	7.38	0.33*	
	-----	7.10	7.38	0.28*	0.13
Agility	14.09	14.20	----	0.11	
	14.09	----	15.99	1.90*	
	-----	14.20	15.99	1.79*	0.49

As per results of table -5, since mean difference for Leg explosive power, Cardio Respiratory endurance, speed and agility between physical exercise and control group were 0.23, 111.5, 0.33 and 1.90 respectively, Yogic Practices and control group were 0.20, 153.4, 0.28 and 1.79 respectively are higher than the CI value of 0.13, 52.31, 0.13 and 0.49 respectively. It was concluded that observed adjusted mean difference is statistically significant. Since mean difference for Leg explosive power, cardio Respiratory endurance, speed and agility between physical exercise and Yogic Practices groups were 0.03, 41.9, 0.05 and 0.11 are lesser than the CI value of 0.13, 52.31, 0.13 and 0.49 respectively. It was concluded that observed adjusted mean difference is statistically not significant.

DISCUSSION ON FINDINGS

The results of analysis of covariance on comparative effects revealed that mean difference existing among 3 groups physical exercises, Yogic Practices and control groups on Leg explosive power, Cardio Respiratory endurance, speed and agility, was statistically Significant. In comparison of mean value of physical exercises with Yogic Practices and control groups, the mean differences on selected criterion measures namely Leg explosive power, Cardio Respiratory endurance, speed and agility were found as statistically higher than required CI value. It was also observed that in comparison of mean value of Yogic Practices

with physical exercises & control group, mean differences on selected criterion measures anxiety were found as statistically higher than required CI value. When cause of such significance was investigated further, results of a post-hoc test revealed that Yogic Practices group did considerably better than the other groups. It describes how both groups of physical and yogic activities did well on these components. Furthermore, when comparing the performance of the Yogic Practices & physical exercises groups to control group, the post-hoc findings show that performance of players in Yogic Practices & physical activities groups was significantly higher. The scientific structure & imbibe of yoga are underlying causes of Yogic Practices group's ascendancy. In next sections, observed facts of aforementioned components are explored in conjunction with previous studies & nature of game.

Yoga postures are physical positions that combine breath with movement & hold position in order to stretch & strengthen various sections of body. Yogic techniques are an excellent supplement to other types of physical activity such as jogging, cycling, & swimming. Yogic postures focus on all major muscle groups, including back, neck, and shoulders, as well as deep abdomen, hip, & even ankles, feet, wrists, & hands. Yoga techniques, by definition, influence all muscle groups & organs, as they simultaneously impart strength, develop flexibility, & nourish internal organs. Although most postures are not aerobic in nature, they do deliver oxygen to cell through conscious deep breathing & continuous stretching and contraction of various muscle groups. Yoga can assist to correct any imbalances in muscle development & allow both mind & body to work more efficiently. Yogasana practice strengthens muscles, relieves physical stress, & increases attention and composure. Yoga helps to balance, strengthen, & relax limbs. Standing postures help with balance & muscular flexibility. After a tough game, yogic practice might help players rest & recharge their energy. It also encourages calm, clear thinking even in situations that need quick reactions. Yoga stretches & strengthens all of body's muscles while also bringing serenity & quiet to mind & spirit.

CONCLUSIONS

In the performance of physical fitness variables physical exercises group would have better performance than that of Yogic Practices and control groups among Powerlifting players. The result reveals that the physical exercises group was shown significantly better performance than Yogic Practices and control groups on physical variables namely Leg explosive power, cardio respiratory endurance, speed and agility. Hence the formulated hypothesis No. 1 related to these factors was accepted. In the Powerlifting performance yogic practices and physical exercises groups would have better performance than that of control group among Powerlifting players. The result reveals that the Yogic Practices and physical exercises groups were shown significantly better performance than control group on offensive and defensive skills namely hand touch, leg touch, ankle hold and blocking. Hence the formulated hypothesis four related to these factors was accepted.

Findings on physical variables show that the physical exercises group had a greater impact than the Yogic Practices group. It was determined from this that owing to similarities in physical training, there are opportunities to build physical variables.

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