



A Study on Psychological General Well-Being among the School Going Children Pre and Post Plyometric Training

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ABSTRACT

The ability of plyometric training to improve athlete psychological problems (psychological general well-being) continuously a matter of discussion in the field of sports psychology. The purpose of the study was to investigate a study on psychological general well-being among the school going children pre and post plyometric training. To achieve these purpose thirty state level (school games) athletes were selected at randomly from barasat athletic coaching center, Barasat, North 24 parganas, West Bengal. Their age ranged from 14-19 years. The twelve weeks plyometric training schedule is over for the study. During the training time, the underwent their supporting training programme, four days per weeks on alternate days for twelve weeks in addition to their regular programme. The selected subjects were tested on selected criterion variables such as psychological general well-being. The above criterion variables were a determined by P.G.I. General Well-being measuring test (1993). Prior to the training and after the twelve weeks of plyometric training programme data were collected tested through pre-test and post-test in different duration from the subjects. The subjects were tested for all the selected criterion parameters. The collected data were statistically analyzed by “t” test. Where ever the ‘value for the post-test result was found significant to find out the

compare mean differences. In all the cases 0.05 level of significance was fixed to test the significance. From the study's findings, it is concluded that the twelve week of plyometric training produces more effective improvement in psychological variables for school going children and it is also concluded that the plyometric training protocol adopted for the study capable of improving for psychological variables among school going children.

INTRODUCTION:

Sport psychology is an interdisciplinary science that draws on knowledge from many related fields including biomechanics, physiology, kinesiology and psychology. It involves the study of how psychological factors affect performance and how participation in sport and exercise affect psychological and physical factors. In addition to instruction and training of psychological skills for performance improvement, applied sport psychology may include work with athletes, coaches, and parents regarding injury, rehabilitation, communication, team building, and career transitions.

Success in many sports depends heavily upon the athlete's explosive leg power and muscular strength. In jumping, throwing, track and field events, and other activities, the athlete must be able to use strength as quickly and forcefully as possible. This display comes in the form of speed-strength or power (Yeses, & Hatfield 1986). Power represents the amount of work a muscle can produce per unit of time. An increase in power gives the athlete the possibility of improved performance in sports in which the improvement of the speed-strength relationship is sought (Paul, et. al., 2003).

People with high levels of psychological well-being report significant satisfaction with their life accomplishments and circumstances; they have a perceived relative absence of anxiety and depression, they are capable of dealing with daily life and they show high levels of enjoyment and self –esteem. Psychological well-being has two important facets. Since the concept of psychological well- being is made up of a number of distinct psychological outcomes, it may be more helpful to review how exercise relates to such components of psychological well-being as psychological depression, anxiety, self-esteem, reactivity to stress, cognitive functioning, and positive moods. Psychological well-being concerns everyone.



METHODOLOGY

The asses of the pre-test were to find out a study on psychological general well-being among the school going children pre and post plyometric training. For the study, 30 athletes were randomly selected as subjects. The age of the subjects ranged between 14 to 19 years’ state levels athletes. 30 athletes trained by plyometric training protocol for the twelve weeks but they also receive regular training. All the subjects were instructed about the nature of the study and their consent was obtained to help till the last of the experiment and testing time. Qualified coaches examined the subject’s mental and physical fitness for the study. They were free to everything their consent in case they felling any problem during the period of their presentation, but there were no exequise. All subjects were fit for the study because everyone had achieved at state level school games competition.

Study Tools: For the study, 30 athletes were randomly selected as subjects. The age of the subjects ranged between 14 to 19 years’ and they belong to state levels adolescent athletes.

The selected subjects were randomly divided into three experimental groups namely sprinters, jumpers and throwers groups with ten subjects in (10) each groups. Three experimental groups (sprinters, jumpers and throwers) were trained by plyometric training protocol for the twelve weeks with daily normal activities. Different tools were used in the study, they are: The instrument such as stop watch, measuring tape, football cones, weighing machine, Stadiometer, tool box were reliable and exact sufficient to measures the particulars successively.

CRITERION MEASURES AND SELECTION OF TESTS

The following test were administered to measures the selected psychological variables for school going children. The tests were administered to the subjects before and after the training programme.

SL.NO.	VARIABLES	TESTS	UNITS
1.	Psychological general well-being	P.G.I. Psychological general well-being measuring test.	Score

RESULT AND DISCUSSION

The chapter deals with the analysis of data collection from the sample study. The observation was analysed with difference of psychological general wellbeing response to selected training at in relation to pre-test and post-test. The statistics which help to describe a data distribution measure of mean and standard deviation were calculated for summarizing the data. Paired sample has been used for finding



significant pre-test to post-test mean differences in each group of each variables t-test was used to find out significant mean difference in pre-test and post-test of different groups with respect to each variables. The “t-test” was used to find out significance adjusted post-test mean difference of each parameter. The “t-test” needed to be significant at 0.05 levels. Thoroughly discuss about result and discussion of each variable have given below-

TABLE-1: Demographic details of the children

Variables	Descriptions	Number
Gender	Male & Female	25&5
Age	Below -15 & Above-15	19 & 6
Religion	Hindu & Muslim	21 & 9
Educational Qualification	Below :class-x & Above:class-x	17 & 13
Marital status	Married & Unmarried	30 & 0

The Mean and SD of the Pre-test and Post-test value variable have been presented in Table: 2.

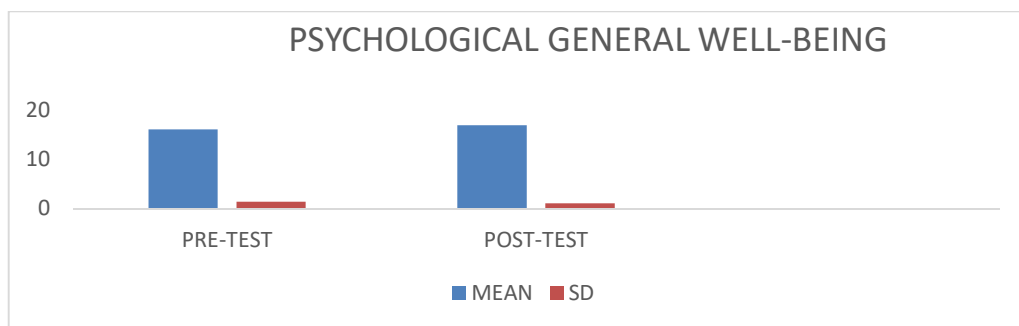
TABLE-2: Mean and SD Table for Within-Subject Variables of Psychological well-being

Variable	Mean	SD
Pre test	16.07	1.46
Post test	16.94	1.14

Note. n = 30.

Table-2: Showed the Mean and SD of the Psychological general well-being performance of the children in Pre Test and Post-test.

FIGURE-1



Graphical representation of Mean and SD of Psychological general well-being among children.



The “t” test used with one within-subjects factor was organized to determine whether significant differences exist among Pre Test and Post-test so far as Psychological general well-being performance was concerned.

TABLE-3: Psychological general well-being level among the children

During Training	N	Mean	S.D.	t-value	p-value
Before plyometric training(Pre-test)	30	16.07	1.46	2.703*	0.011
After plyometric training(Post-test)	30	16.93	1.14		

*t-test is significant at 0.05 level.

[H₁-accepted]

Post -test result of psychological general well-being was significantly improvement than Pre-test, $t(30) = 2.703$, $p = .011$ and Pre-test was marginal means contrasts for the t-test. From the test it was concluded that the Post-test significantly improved by plyometric training on school going children than Pre-test, $t(30) = 2.703$, $p = .011$. Table-3 presented the test performances were significantly improved by the treatment of plyometric. But there was so difference between the post-tests so far as psychological general well-being performance was concerned. Present study showed that Pre-test result of school going children in psychological general well-being was lower than their result in Post-test.

The “t” test used with one within-subjects factor was organized to determine whether significant differences exist on psychological general well-being among Pre Test and Post-test so far as was concerned. Post -test result of psychological general well-being was significantly improvement than Pre-test, $t(30) = 2.703$, $p = .011$ and Pre-test was means contrasts for the t-test. From the test it was concluded that the Post-test significantly improved by plyometric training on school going children than Pre-test, $t(30) = 2.703$, $p = .011$. Table-3 presented the test performances were significantly improved by the treatment of plyometric. But there was so difference between the post-tests so far as psychological general well-being level was concerned. Present study showed that Pre-test result of school going children in psychological general well-being was lower than their result in Post-test.

It is being clear from this table that the group had exhibited significant improvement in the variable psychological general well-being as measured by test after period of twelve-weeks plyometric training as



obtained ratio 2.703 were found greater than the tabulated value 0.011 required to be significant at 0.05 level of confidence.

The findings of this study are very well supported by **Ramesh et.al (2018)** conducted a study that was to find out the “Effect of plyometric exercise on speed among football players”. To achieve this 40 male player from various colleges of Osmania University, Hyderabad were selected.

The subjects were made into experimental and control group. Speed was assessed by 30 meter run. After six weeks of training the plyometric exercise showed improvement on speed than the other group. The present study is very much relevant to the above study.

The findings of this study are very well supported by **Kotzamanidis et.al (2006)** conducted a study that was to investigate the effect of plyometric training on running velocity (RV) and squat jump (SJ) in prepubescent boys. The study showed that the SJ performance of the JUMP group increased significantly, as well ($p < 0.05$). The result of our study is very much relevant to the above study.

The enhancement of psychological general well-being level is maximized when engaged with light to moderate plyometric exercise without interpersonal competition. Psychological benefits included increasing self-esteem, increasing sense of mastery, control in the lives and mood, providing a distraction to psychological general well-being and rumination, reducing, and in psychological general well-being proving sleep pattern. In the present investigation, the Psychological factors of psychological general well-being state were selected. In order to observe the changes Plyometric Training were employed.

The results of the present study indicate that plyometric training produced significant reduction in psychological general well-being and improvement in mood state of school going children, when comparing the baseline with post-test. The observed reduction in psychological general well-being and improvement in mood state due to the influence of plyometric training. The improvements in the psychological parameter like psychological general well-being might be a direct impact of changes in psychological parameters due to the influence of plyometric training program. The improvement in mood state and reduction in the psychological general well-being may be reason for reduction in psychological general well-being the of the subject in this study.

CONCLUSIONS OF THE STUDY:

Within the limitation of the study and based on the result of the study the following conclusions may be drawn-



1. The twelve week of plyometric training produces more effective improvement in psychological variables (psychological general well-being) for sprinters.
2. The twelve week of plyometric training improvement of psychological general well-being for school going children.
3. The anxiety level of the school going children is most effectively improving as compare to psychological general well-being.
4. It is concluded that the plyometric training protocol adopted for the study capable of improving psychological parameters for school going children.

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