

# A Comparison among Pittsburgh Insomnia Rating Scale after Normal Training and before Competition of Male Basketball Players

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**Abstract – The aim of this study was Pittsburgh Insomnia Rating Scale among Male Basketball Players (A Comparative Study). The objectives of the present study were (1) To determine insomnia rating scale after normal training (not very high intensity or volume) of male basketball players age ranged from 17 to 23 years for duration of an interval of one week. (2) To determine the effect on insomnia rating scale just before the competition of male basketball players age ranged from 17 to 23 years. (3) To compare between after normal training (not very high intensity or volume) and before the competition of male basketball players of age ranged from 17 to 23 years. The study was delimited to 15 males basketball players age ranged from 17 to 23 years. Insomnia Rating Scale was studied using Pittsburgh Insomnia Rating Scale. The dietary intake, life style and some unavoidable factors of male basketball players are considered as the limitations. PIRS were administered after normal training, just before the competition and to compare between after normal training and just before the competition of male basketball players age ranged from 17 years to 23 years. Conclusion of the study was There are significant difference in all the four variables of PIRS namely distress score, sleep parameter, quality of life after and total score found to be significantly difference between insomnia rating scale of after normal training and before competition of males players of basketball at 0.05 level of significance.**

## INTRODUCTION:-

Sleep is one of nature's greatest invention and blessings of life. It is a periodic rest of the body which is absolutely essential for its efficient functioning. It has been called "most cheering restorative of tired bodies". Sleep is the indispensable condition to the recuperation of energy. We go to bed fatigued and get up refreshed. Sleep repairs the wear and tear of the body and mind incurred during waking hours. Nothing is so restorative to the nerves as sound and uninterrupted sleep.

Sleep is thus a vital element in a total way of life. It is a basic need in man's mental as well as physical life. During sleep most of the functions of the body are carried on at the lowest level possible in health. Heat production is from 10% to 15 % below the basal level. The mechanisms regulating the body temperature are less sensitive than in the waking state and are depressed by 0.5 to 1.0 degree F. The rate of heart is reduced by 10 to 30 beats per minute and a decline in blood pressure of about 20 mm/ hg occurs in quite restful sleep.

The urine volume is considerably reduced but its concentration in solids is increased. The tone of all the skeletal muscle is lessened. The eyes are usually rolled upward and the pupils constricted. Loss of sleep

exerts seriously detrimental effects upon the nervous system. Long period of wakefulness may cause profound psychological changes such as loss of memory, irritability, hallucination and even schizophrenic manifestations (Carskadon,2010).

## INSOMNIA OR SLEEPLESSNESS

Insomnia or Sleeplessness has assumed alarming proportions in present time. This is evident from the wide range of medication for this condition described by physicians and sold by chemist. Insomnia deprives a person of mental rest and thereby interferes with his activities in the daytime. It constitutes severe health hazard when it becomes a habit.

Sleep is a periodic state of rest for the body which is absolutely essential for its efficient functioning. Sleep gives relief from tension, give rest to the brain and body and person wakes up in the morning fresh and relaxed after sleep.

The amount of sleep, however, varies within very wide limits from individual to individual. Normally, seven to eight hours sleep every night is adequate for most people some, however, do well with four to five hours because their sleep is deeper and more refreshing.

## **PITTSBURGH INSOMNIA RATING SCALE**

PIRS is a widely used instrument for assessment and research practice. Designed to rate the severity of insomnia. Subjects score the items that have three broad sections.

First, the subjective distress score had 46 items, second subjective sleep parameters had 10 items and third is the quality of life had 9 items then forth is the grand total of all the score i.e. total score. The items have to be scored according to the last week sleep experience and related variables PIRS have been mentioned as Section A of the scale have a 10 centimeter to mark the quality of sleep in the past last week. This answer is not used for the scoring. Section B has 46 questions which have to be answered on the likert scale from 0 to 3 (0 means not at all bothered, 1 means slightly bothered, 2 means moderately bothered, 3 severely bothered).

Sum of the scores of 46 items is the grand score of the distress score. Section C has 10 questions which have to be answered on the likert scale 0 to 3 with variable answers depending on the question. Sum of the scores of 10 items is the grand score termed as sleep parameters score. Section D has 9 questions which have to be answered on the likert scale from 0 to 3 (0 is excellent, 1 is good, 2 is fair, 3 is poor). Addition of all the answers gives the final score is Quality of life score. Section E is comments which the patient gives but it is not added in the scoring. Final score is the grand total of all the three scores. Minimum score is 0 (good) and maximum is 195 (bad) ([www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov) > NCBI > Literature > PubMed Central (PMC))

## **OBJECTIVES OF THE STUDY**

- To determine insomnia rating scale after normal training (not very high intensity or volume) of male basketball players age ranged from 17 to 23 years for duration of an interval of one week.
- To determine the effect on insomnia rating scale just before the competition of male basketball players age ranged from 17 to 23 years.
- To compare between after normal training (not very high intensity or volume) and before the competition of male basketball players age ranged from 17 to 23 years.

## **DELIMITATIONS OF THE STUDY**

- The study was delimited to 15 males basketball players age ranged from 17 to 23 years. Insomnia Rating Scale was studied using Pittsburgh Insomnia Rating Scale.

## **LIMITATIONS OF THE STUDY**

- The dietary intake, life style and some unavoidable factors of males and females basketball players are considered as the limitations.

## **HYPOTHESES OF THE STUDY**

- It was hypothesized that there will be negative effect on insomnia rating scale just before the competition of male basketball players age ranged from 17 to 23 years.
- It was hypothesized that there will be significant difference between after normal training (not very high intensity or volume) and before the competition of male basketball players age ranged from 17 to 23 years.

## **Selection of Subjects**

Keeping in view the purpose of the study, a large number of male and female basketball players were randomly selected. Total 15 males were selected the age of the subjects were ranged from 17 to 23 years.

## **Selection of Variables**

The PIRS include following variables:

- a) Distress Score
- b) Sleep Parameter
- c) Quality of Life
- d) Global Score

## **Administration of the Test**

- PIRS were administered to determine the insomnia rating scale after normal training of male basketball players age ranged from 17 years to 23 years.
- The PIRS were administered to determine the insomnia rating scale just before the competition of male basketball players age ranged from 17 years to 23 years
- PIRS were administered to compare between insomnia rating scale of after normal training of male basketball players and just before the competition of male basketball players age ranged from 17 years to 23 years

**FINDINGS OF THE STUDY**

**Table 1**

**Descriptive Statistics of PIRS of Male and Female Basket Ball Players**

Variables	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
DS	1	6.2667	1.22280	.31573	5.5895	6.9438	5.00	9.00
	2	40.2000	12.03685	3.10790	33.5342	46.8658	26.00	60.00
	Total	30	23.2333	19.19534	3.50457	16.0657	30.4010	5.00
SP	1	1.6000	.82808	.21381	1.1414	2.0586	.00	3.00
	2	8.6667	1.04654	.27021	8.0871	9.2462	6.00	10.00
	Total	30	5.1333	3.71143	.67761	3.7475	6.5192	.00
QL	1	.2000	.41404	.10690	-.0293	.4293	.00	1.00
	2	8.4000	1.24212	.32071	7.7121	9.0879	6.00	10.00
	Total	30	4.3000	4.26817	.77926	2.7062	5.8938	.00
TOT	1	8.0667	1.66762	.43058	7.1432	8.9902	6.00	12.00
	2	57.2667	12.59516	3.25206	50.2917	64.2416	38.00	77.00
	Total	30	32.6667	26.53213	4.84408	22.7594	42.5739	6.00

Note: 1=After normal training

2= before Competition

Total= 1 (After normal training) +2 (before Competition)

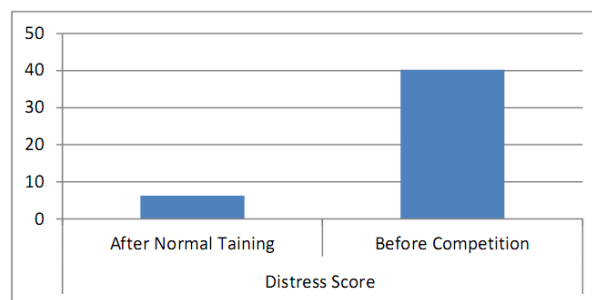
The analysis in table 1 documented the descriptive statistics of PIRS. The Group wise Mean + SD of variable distress score after normal training of males, distress score before competition of were 6.2667 + 1.22280 and 40.2000 + 12.03685, respectively.

The group wise Mean + SD of variable Sleep Parameter after normal training of female, Sleep Parameter after normal training of males, Sleep Parameter before competition of females Sleep Parameter before competition of were 1.6000 + .82808 and 8.6667 + 1.04654, respectively.

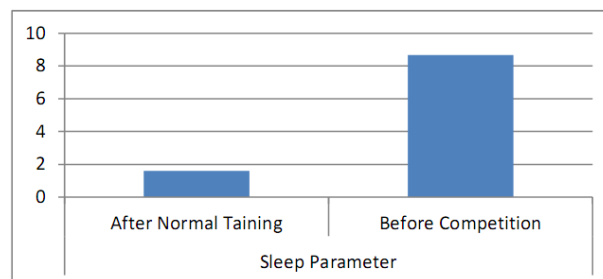
The group wise Mean + SD of variable quality of life after normal training of males, and quality of life before competition of were .2000 + .41404 and 8.4000 + 1.24212 respectively.

The group wise Mean + SD of variable total score after normal training of males, and total score before competition of were 8.0667 + 1.66762 and 57.2667 + 12.59516 respectively.

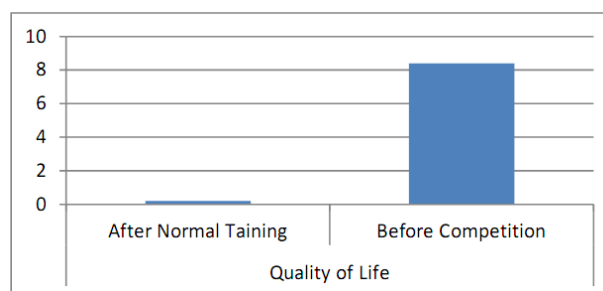
The descriptive statistics of PIRS have been graphically illustrated in Fig.1 to 8



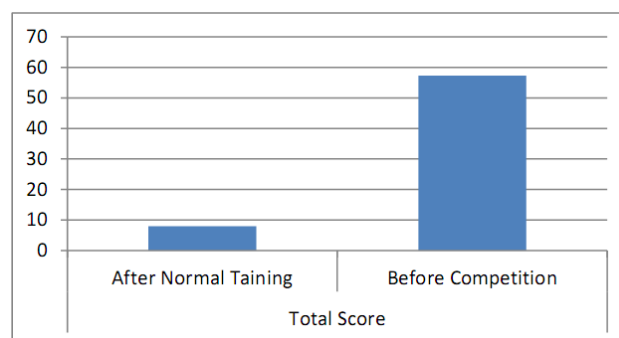
**Fig.1 Mean of Distress Score**



**Fig. 2 Mean of Sleep Parameter**



**Fig. 3 Mean of Quality of Life**



**Fig. 3 Mean of Total Score**

**Table 2**

**Analysis of Variance of PIRS**

Variables		Sum of Squares	df	Mean Square	F	Sig.
Distress Score	Between Groups	8636.033	1	8636.033	117.994	.000
	Within Groups	2049.333	28	73.190		
	Total	10685.367	29			
Sleep Parameter	Between Groups	374.533	1	374.533	420.599	.000
	Within Groups	24.933	28	.890		
	Total	399.467	29			
Quality of Life	Between Groups	504.300	1	504.300	588.350	.000
	Within Groups	24.000	28	.857		
	Total	528.300	29			
Total Score	Between Groups	18154.800	1	18154.800	224.940	.000
	Within Groups	2259.867	28	80.710		
	Total	20414.667	29			

Note: N=15

The analysis of data in table 2 demonstrated all four variables of PIRS namely distress score, sleep parameter, quality of life after and total score were found to be significantly different between insomnia rating scale of after normal training and before competition of males players of basketball.

**CONCLUSION**

There are significant difference in all the four variables of PIRS namely distress score, sleep parameter, quality of life after and total score were cofound to be significantly difference between insomnia rating scale of after normal training and before competition of males players of basketball at 0.05 level of significance.

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