



COMPARATIVE STUDY OF MENTAL IMAGERY BETWEEN ELITE & SUB-ELITE VOLLEYBALL PLAYERS OF NAGPUR UNIVERSITY

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Abstract:

The main purpose of this study is to present forth the visions on comparison of mental imagery between elite & sub-elite volleyball players of Nagpur University. This study searches mental imagery comparison of female elite and sub-elite volleyball players. This research study is qualitative and achieve by the technique of descriptive & inferential statistics. The self-administered questionnaire has been used for data collection which is based on five point Likert scale. From research it has been observed that there is no significant difference between mental imagery of elite & sub-elite volleyball players. This research study concludes that mental imagery of female elite and sub-elite volleyball players is similar.

Keywords: Mental imagery, Volleyball, Elite, Sub-Elite, Female.

Introduction

Every year around 700 female players played volleyball in intercollegiate tournament organised by RTM Nagpur University and approximately 18 players are selected in team of RTM Nagpur University. Every year this team represents RTM Nagpur University in West Zone competition and further All India Inter University Competition organised by Association of Indian Universities. In India Volleyball was introduced by Y.M.C.A, college of physical education, Madras (Chennai, Tamilnadu) during the year 1900 and taken initiative in popularizing the game in India. Therefore researcher identified a need to have a deep vision on variables related with volleyball players. Now a days in the field of sports; trainers, coaches, players not only highlighting on physical fitness and game skill but also on mental skills, because there is need of certain level of mental skill to give better performance and improve the performance. Mental imagery plays important role in the path of performance. A short summary of related research studies carried out in different

fields of sports are as follows.

Literature Review:

(Hamid Ghezal Soflu, 2011) The aim of present research is focused on investigating the relationship between the type of conceptual imagery to team efficiency and the performance of amateur and professional volleyball players. The results showed that both professional athletics groups and amateur ones used skilled imagery (MG-M) more than other ones. Also, a meaningful difference was observed in group efficacy between amateur and professional volleyball players ($P < 0.001$ and $F = 21.45$).

(Lynne Evans, 2004) The purpose of the present study was to explore the use of imagery by an elite rugby union football player and to examine the effects of an imagery intervention in a practical performance environment. Post-intervention, the participant reported greater clarity; detail; control over his anxiety, activation, and motivation levels; an improvement in his ability to generate confidence in his playing ability prior to games; and more structure to his imagery use.

(Filgueiras, 2016) The aim of the present study was to use PETTLEP and Paivio's imagery models as an intervention to establish routine, to improve technique and to boost self-confidence toward serving of an Elite Beach Volleyball player. A single case study was conducted with a 25-year-old athlete. The researcher followed the athlete during serving practice for 4 months, guiding him through imagery exercises. Two open-ended interviews and six questionnaires were examined by content analysis. Results suggest that imagery did help the player. Limitations of this study and recommendations for imagery use are presented.

(Afrouzeh, 2013) This study conducted to compare the effects of (a) physical practice with PETTLEP-based (Physical, Environmental, Task, Timing, Learning, Emotion and Perspective; Holmes & Collins, 2001) imagery, and (b) physical practice with traditional imagery interventions, on new skill learning in novice volleyball players. The findings, therefore, support the effectiveness of PETTLEP in enhancing learning and performance of new skill when combined with physical practice.

(Twinkle Duwarah, 2018) The present study was undertaken to investigate the sports imagery ability of National and State level Shuttlers in Assam state and then to compare their imagery ability status. The findings of statistical analysis revealed that there was no significant difference in sports imagery ability between National and state level shuttlers in Assam.

(Sharma, 2017) The purpose of the study was to find out the effect of imagery training on selected skill performance variables of male volleyball players. The Analysis of Covariance (ANCOVA) was used to investigate the effect of imagery training on selected skill performance variables of male volleyball players. Imagery training has significant impact on passing and serving among the players of imagery training compared to players of control group.

(Sethu, 2014) The purpose of the study was to analyze the mental imagery among Basketball, Kabaddi, Kho-Kho and Volleyball players. The result of the study shows that there was significant difference among Basketball, Kabaddi, Kho-Kho and Volleyball

players on mental imagery. It was found that Volleyball players were showed better performance in mental imagery when compared to other players.

(Gwen, 2004) The purpose of this study was to examine the practice of internal visual imagery and explore various theories that suggest imagery, along with physical practice, can enhance performance in shooting a penalty kick in soccer. In the present study, the imagery training exposed the subjects to the psychological dimension of the game but the quality, quantity and realism of the exposure limited the success of the participants. Although the imagery conditions did not result in definite improvement of the penalty kick, it enhanced the participants overall knowledge of the components of soccer.

Objectives of Study:

1. To examine mental imagery of female elite volleyball players of Nagpur University.
2. To examine mental imagery of female sub-elite volleyball players of Nagpur University.
3. To compare mental imagery of female elite & sub-elite volleyball players of Nagpur University.

Hypothesis of Study:

There is no significant difference between mental imagery of elite & sub-elite volleyball players of Nagpur University.

Significance of Study:

1. The study will be helpful to understand the difference in mental imagery of female elite and sub-elite volleyball players.
2. The study will be enlightened the importance of mental imagery for performance.
3. The finding may prove helpful to the physical educators, coaches, trainers and players to prepare their training schedule for better performance.

Delimitations:

1. The study was delimited to the female volleyball players of Inter-Collegiate level and Inter-University level of Nagpur University.
2. The study was delimited in the age group of 18-28 years.
3. The study was delimited to 54 female elite volleyball players.
4. The study was delimited to 330 female sub-elite volleyball players.
5. The study was delimited to mental imagery.

Limitations:

1. The daily routine life and voluntary participation in other physical activities by the subjects which was not under control of researcher.
2. There was no control over their habits, diet and motivation.
3. There was no control over environmental factors.

Research Method:

Descriptive & inferential research design has been used for this study. The research study based on qualitative research technique. Researcher adopted survey method for approaching target respondent.

Sample Design:

The target population for this study was all female volleyball players of Nagpur University who have played during 2015-2017. The target population for elite group was approximately 54 and for sub-elite group were approximately 330. The researcher had taken all elite players as sample for one group i.e. a sample of 54 elite volleyball players and sample of 330 sub-elite volleyball players. For sub-elite players cluster was formed on the basis of year of batches of players. Three clusters starting from 2015 to 2017 have been formed and samples were drawn from clusters proportionately.

Data Collection:

The researcher had used self-administered questionnaire to collect primary data. For data collection questionnaire has been designed.

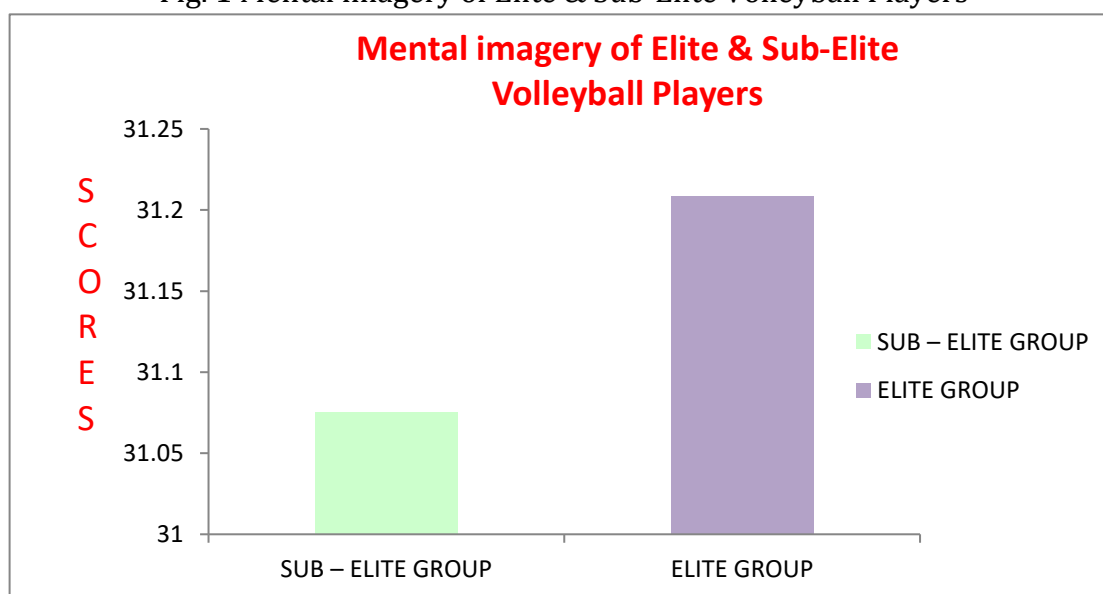
Analysis of Data:

A bar graph has been prepared to check the mental imagery of female elite & sub-elite volleyball players of Nagpur University.

Table 1 : Mean of the Group

	SUB – ELITE GROUP	ELITE GROUP
Mean	31.07552083	31.20833333
Observations	330	54

Fig. 1 Mental imagery of Elite & Sub-Elite Volleyball Players



As it is evident from bar graph there seems difference between mental imagery of female

elite & sub-elite volleyball players of Nagpur University.

Testing of Hypothesis:

Null Hypothesis: - There is no significant difference between mental imagery of elite & sub-elite volleyball players of Nagpur University.

$H_0: \mu = 0$

Alternate Hypothesis: - There is significant difference between mental imagery of elite & sub-elite volleyball players of Nagpur University.

$H_1: \mu \neq 0$

*The researcher wish to compare mental imagery of elite and sub-elite female volleyball players. Therefore computing t-Test: Two Sample Assuming Equal Variances will be a suitable measure. To check whether there is significant difference between variance of elite & sub-elite group F-Test will be used. For this following is null & alternate hypothesis.

Null Hypothesis: - There is no significant difference between variance of female elite & sub-elite group.

Alternate Hypothesis: - There is significant difference between variance of female elite & sub-elite group.

Table 2 : Result of F Test

Computing F-Test		
	ELITE GROUP	SUB – ELITE GROUP
Mean	31.20833333	31.07552083
Variance	26.9930192	17.88201017
Observations	54	330
df	53	329
F	1.509506981	
P(F<=f) one-	0.000384043	
F Critical one-	1.224268599	
α	0.05	

As p-value = (0.0003) < (0.05) = α , Null hypothesis is accepted i.e. variance of both groups were same.

*Now check the difference between calculated mean of both groups is significant or not by t-Test: Two Sample Assuming Equal Variances.

Table 3 : Result of Hypothesis Testing

Hypothesis Testing		
Computing p-value		
	SUB – ELITE GROUP	ELITE GROUP
Mean	31.375	31.57407407
Variance	15.7081202	15.25960379

Observations	330	54
Pooled Variance		15.54899309
Hypothesized Mean Difference		0
df		382
t Stat		0.595774195
P(T<=t) one-tail		0.275774263
t Critical one-tail		1.647371969
P(T<=t) two-tail		0.551548525
t Critical two-tail		1.963886321
α		0.05

Since t-critical two-tail (1.96) > T Statistics (0.595) & p-value (0.55) > α (0.05), therefore null hypothesis accepted.

Interpretation:

There is no significant difference between mental imagery of female elite & sub-elite volleyball players of Nagpur University at 0.05 significance level.

Conclusion:

It has been founded that there is no significant difference between mental imagery of female elite & sub-elite volleyball players of Nagpur University. It is concluded by this research study that mental imagery of female elite volleyball player and mental imagery of female sub-elite volleyball player of Nagpur University is similar.

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