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Assessment of mental skills between volleyball and wrestling players

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Abstract
Study Aim: The aim of this study was to assess the Mental Skills Between Volleyball and Wrestling Players.
Materials and Methods: Twenty-four (N=24) male subjects, between the age group of 18 to 25 years from Guru Nanak Dev University, Amritsar, Punjab, India participated in this study. The subjects were purposively divided into two groups: Group-A: Volleyball Players: [N_1=12] and Group-B: Wrestling Players: [N_2=12].
Statistical Analysis: Independent samples t-test was employed for the present investigation. The SPSS (statistical package for the social sciences) version 20.0 was used for all analyses. The level of significance for assessing the hypotheses was set at 0.05.
Results: The means of Volleyball and Wrestling Players are not significantly different with regards to sub-variable, Imagery Ability, Mental Preparation, Anxiety and Worry Management and variable, Mental Skills (Total). However, the means of Volleyball and Wrestling Players are significantly different with regards to sub-variable, Self-Confidence, Concentration Ability and Relation Ability.

Keywords: Volleyball, wrestling, mental skills, imagery ability, mental preparation, self-confidence, anxiety and worry management, concentration ability, relation ability

Introduction
There is considerable evidence for the benefits of sport participation on psychological wellbeing. [1]. Mental toughness can enhance an individual's ability to cope with demanding circumstances by buffering the damaging effects of stress [2]. In the early days, coaches and athletes recognized the importance of mental states for optimal performance, but the field of sports psychological training was not flourished because of the misunderstanding that psychological skills are innate properties and lack of knowledge to train these abilities [3]. Therefore, shooting athletes conduct psychological skills training to demonstrate peak performance in competitions with optimal psychological factors. The main interest of sports psychologists has been the development of methods to reinforce psychological factors for athletes to perform at their peak in practice or competition situations. In the past, various terms, such as mental training, mental practice, and image and mental reenactment, have been used to describe the training to develop psychological factors that influence athletes' performance. [4]. Sports psychology is a branch of psychology that studies the psychological characteristics of people in sports and changes in their regular activities. It is also a new discipline in sports, and theories and methods of physical education and physical education and sports. Studies, exercise physiology, and sports training are closely linked. Sports psychology mainly takes the psychological characteristics of people's psychological process changes when participating in sports as the research object, and studies the psychological changes of sports personnel in the process of sports teaching and training and sports competition, such as the psychological characteristics of sports skills formation, before the game. Mental status, psychological training of athletes, etc [5]. To optimize athletic performance and well-being, it is crucial for athletes and coaches to recognize the interaction between these psychological factors. By investing in psychological factors, athletes can promote their abilities in coping stress and anxiety, foster mental resilience and maintain a positive mindset in facing the challenging circumstances [6]. Interest in the mental health and wellbeing of professional athletes has proliferated in the last decade [7].

Sport psychology supported by the International Society of Sport Psychology Mental health can be conceptualized as not just the presence or absence of mental health disorders, but also the presence or absence of subjective wellbeing [8]. Mental health guidelines for recreational sport are urgently needed to ensure that sport environments can facilitate the positive mental health and wellbeing of their members and stakeholders, and ensure the environment is free from stressors that may contribute to the development of mental health disorders or general deterioration of mental health [9]. Psychological skills training (PST) is a popular method which involves teaching athletes' methods to help them to enhance the quality and consistency of their performance [10]. Mental training in sport aims to help athletes better deal with the challenges of competition and training. Improvements in attention are hypothesized to be an impact mechanism for psychological skills training and mindfulness by helping athletes to concentrate on the task at hand in the presence of potential internal and external distractors, and over a long period of time [11, 12]. Psychological skills training might increase action orientation through the help of process goals, for example, an athlete could set a process goal to focus quickly on the next situation after a mistake [13]. There are many different methods used to develop mental skills in task performance, but most can be separated into two basic approaches, cognitive and somatic, even though there is much overlap between the two. Underlying both systems is the aim and motivation of the individual to attain self-mastery, that is, a desire to control their individual psychological world [14].

Material and Methods

Twenty-four (N=24) male subjects, between the age group of 18 to 25 years from Guru Nanak Dev University, Amritsar, Punjab, India participated in this study. The subjects were purposively divided into two groups:

Group-A: Volleyball Players: [N_1=12]

Group-B: Wrestling Players: [N_2=12]

Purposive sampling was used keeping in view of administrative feasibility. The participants participated in the study voluntarily and all the subjects were also informed about the objective and protocol of the study

Mental Skills:

- Imagery Ability
- Mental Preparation
- Self-Confidence
- Anxiety and Worry Management
- Concentration Ability
- Relation Ability

Design of the study

Observational research design was utilized for the purpose of this study. The design is non-experimental as there was no manipulation for the independent variable, no experimental or control group, and no randomization. This is an exploratory study that has employed method of data collection and analysis quantitatively.

Statistical analysis

Independent samples t-test was employed for the present investigation. The SPSS (statistical package for the social sciences) version 20.0 was used for all analyses. The level of significance for assessing the hypotheses was set at 0.05.

Results

Table 1: The independent samples t-test results comparing Volleyball and Wrestling Players on the sub-variables, Imagery Ability, Mental Preparation, Self-Confidence, Anxiety and Worry Management, Concentration Ability and variable, Relation Ability (Total).

Imagery Ability		
	Volleyball Players	Wrestling Players
Mean	12.4167	16.5
Variance	25.7431	45.5833
Stand. Dev.	5.0738	6.7515
n	12	12
t	1.6749	
critical value	2.074	
t < critical value	➢	no sig. diff.
Mental Preparation		
	Volleyball Players	Wrestling Players
Mean	17	14.5
Variance	27.1667	29.0833
Stand. Dev.	5.2122	5.3929
n	12	12
t	1.1547	
critical value	2.074	
t < critical value	➢	no sig. diff.
Self Confidence		
	Volleyball Players	Wrestling Players
Mean	11.75	17.75
Variance	11.5208	22.0208
Stand. Dev.	3.3942	4.6926
n	12	12
t	3.5888	
critical value	2.074	
t > critical value	➢	there is sig. diff.
Anxiety and Worry Management		
	Volleyball Players	Wrestling Players
Mean	11.75	11.3333
Variance	21.1875	24.3889
Stand. Dev.	4.603	4.9385
n	12	12
t	0.2138	
critical value	2.074	
t < critical value	➢	no sig. diff.
Concentration Ability		
	Volleyball Players	Wrestling Players
Mean	9.9167	14.25
Variance	9.0764	35.6875
Stand. Dev.	3.0127	5.9739
n	12	12
t	2.2436	
critical value	2.074	
t > criticall value	➢	there is sig. diff.
Relaxation Ability		
	Volleyball Players	Wrestling Players
Mean	17.0833	12.5833
Variance	15.5764	29.4097
Stand. Dev.	3.9467	5.4231
n	12	12
t	2.3241	
critical value	2.074	
t > criticall value	➢	there is sig. diff.
Mental Skills		
	Volleyball Players	Wrestling Players
Mean	79.9167	86.9167
Variance	138.0764	165.5764
Stand. Dev.	11.7506	12.8676
n	12	12
t	1.3916	
critical value	2.074	
t < critical value	➢	no sig. diff.

Imagery Ability
The absolute value of the calculated t is smaller than critical value [1.6749<2.074], so the means are not significantly different. Thus, the means of Volleyball and Wrestling Players are not significantly different with regards to sub-variable, Imagery Ability.

Mental Preparation
The absolute value of the calculated t is smaller than critical value [1.1547<2.074], so the means are not significantly different. Thus, the means of Volleyball and Wrestling Players are not significantly different with regards to sub-variable, Mental Preparation.

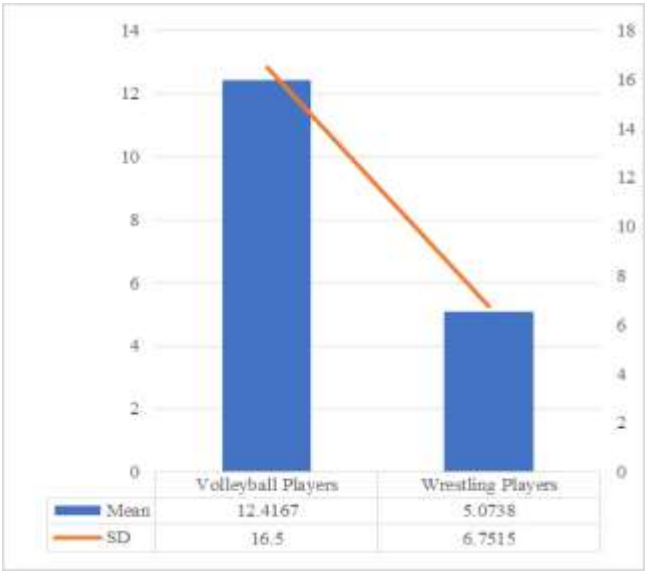
Self-Confidence
The absolute value of the calculated t is greater than critical value [3.5888>2.074], so the means are significantly different. Thus, the means of Volleyball and Wrestling Players are significantly different with regards to sub-variable, Self-Confidence.

Anxiety and Worry Management
The absolute value of the calculated t is smaller than critical value [0.2138<2.074], so the means are not significantly different. Thus, the means of Volleyball and Wrestling Players are not significantly different with regards to sub-variable, Anxiety and Worry Management.

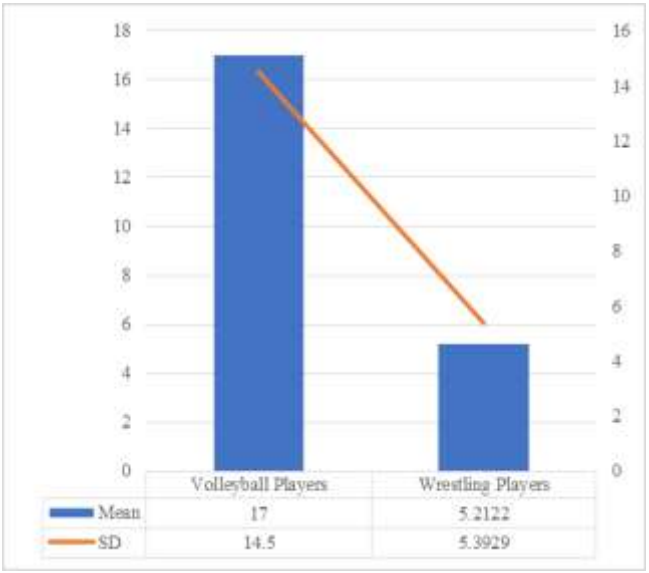
Concentration Ability
The absolute value of the calculated t is greater than critical value [2.2436>2.074], so the means are significantly different. Thus, the means of Volleyball and Wrestling Players are significantly different with regards to sub-variable, Concentration Ability.

Relation Ability
The absolute value of the calculated t is greater than critical value [2.3241>2.074], so the means are significantly different. Thus, the means of Volleyball and Wrestling Players are significantly different with regards to sub-variable, Relation Ability.

Mental Skills (Total)
The absolute value of the calculated t is smaller than critical value [1.3916<2.074], so the means are not significantly different. Thus, the means of Volleyball and Wrestling Players are not significantly different with regards to variable, Mental Skills (Total).



(a)



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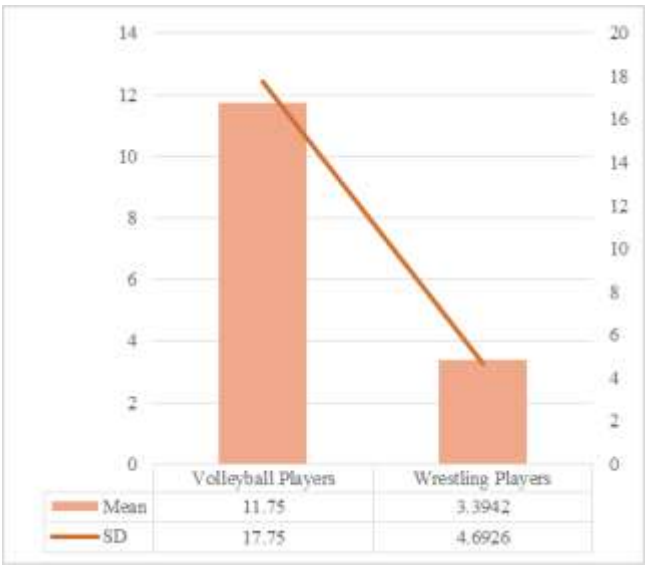

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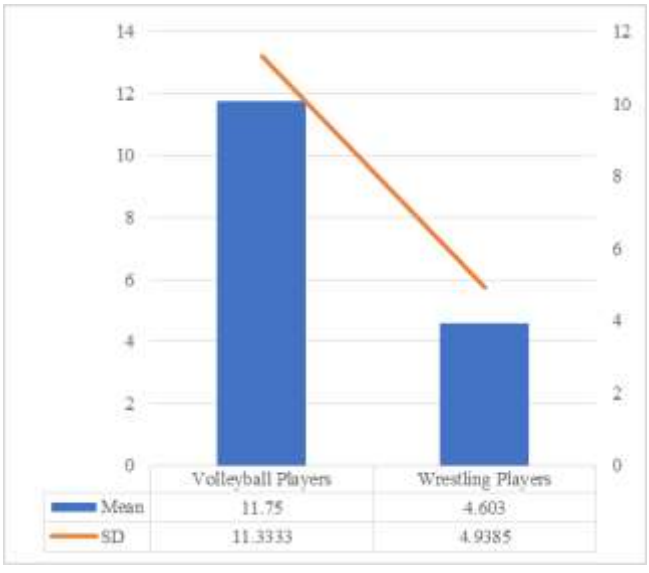

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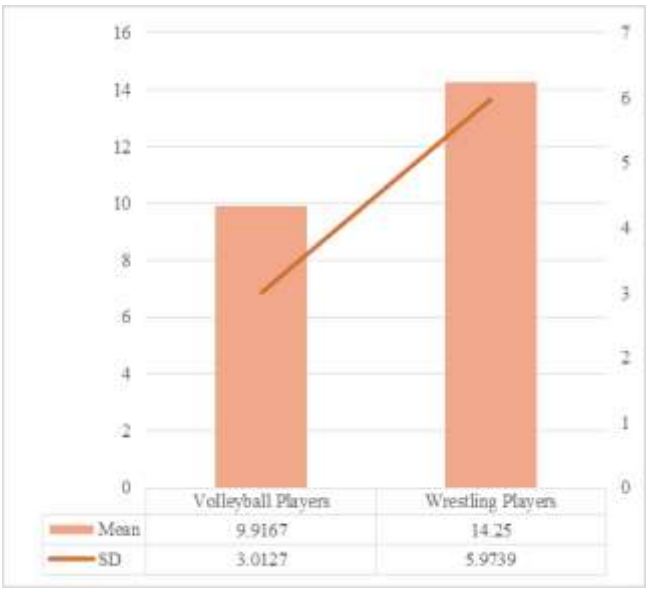

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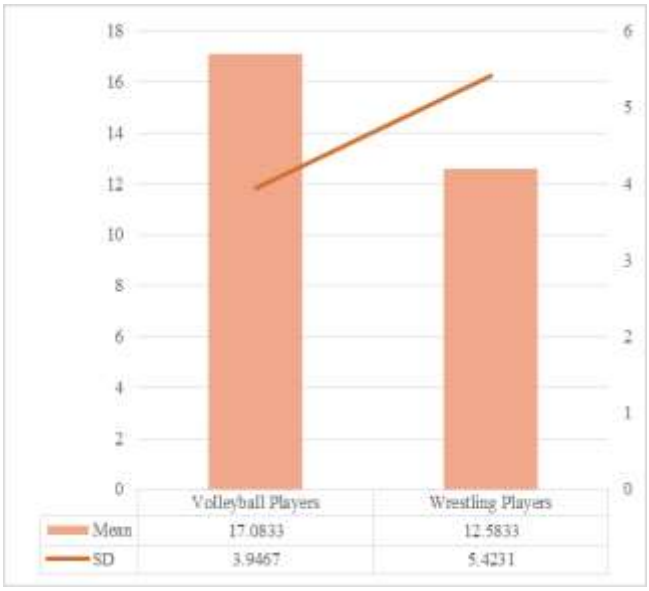

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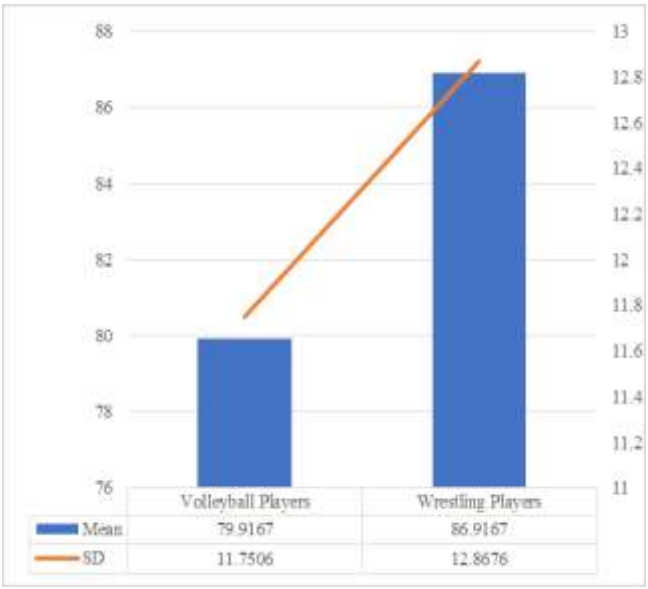

(g)

Fig 1: The Mean and Standard Deviation comparison between Volleyball and Wrestling Players on the sub-variables, (a). Imagery Ability, (b). Mental Preparation, (c). Self-Confidence, (d). Anxiety and Worry Management, (e). Concentration Ability and variable, (f). Relation Ability (Total)

Conclusion

The means of Volleyball and Wrestling Players are not significantly different with regards to sub-variable, Imagery Ability, Mental Preparation, Anxiety and Worry Management and variable, Mental Skills (Total). However, the means of Volleyball and Wrestling Players are significantly different with regards to sub-variable, Self-Confidence, Concentration Ability and Relation Ability.

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Conflict of interest

The authors declare no conflicts of interest.

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