Relationship between Selected Psychomotor Abilities and Anxiety of 19 years Male Hockey Players of Mau Region

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Abstracts

Objective: To find out the Relationship between Selected Psychomotor abilities and Anxiety of 19 years Male Hockey Players of Mau Region. **Methods:** Ninety male hockey players from. Under 19 years was selected as subject for the study from Mau Region and Purposive sampling was used for collection of the data. **Results:** Kinesthetic perception, static balance stroke test, modified bass test, visual perception test and differentiation ability was negatively related to anxiety (r=-.013, -.125, -.057, -.147,-.147 and -.046).

Conclusion: Psychomotor abilities and anxiety are not related.

Key words: Psychomotor, abilities, anxiety.

INTRODUCTION

Psychomotor movement is a complex quality and is influence by the physical performance factors with underline the action of all movements. These factors comprise speed, power, strength and reaction time. Speed of movement agility, flexibility, kinesthetic perceptions, coordinative abilities and the like. This psychomotor movement can be restricted or imbalanced by certain structural factors compressing height, weight, body type, structure and posture. These physical performance factors are effective in the enhancement of psychomotor performance of the sports person.

Psychomotor variables act as the medium for the realization of cognitive and effective domains of learning and motor behaviour. These domains of learning are inseparable identities and work in perfect harmony and vision with one another. The psychomotor variables are primarily concerned with muscular contraction performance of motor skills involves neural, physiological and psychological aspects and is a continue that runs the game from physical to cognitive and there is always an integration between these aspects of human behaviors.

The psychomotor abilities which are used in every sports and games. The psychomotor domains includes all the movement behavior, objectives that emphasize the ability to demonstrate motor skill requiring neuromuscular coordination, manipulation of sports skills and movement that are considered goals of the psychomotor domain.

Field hockey is one of the oldest games in existence. Hockey is the most thrilling and spectacular sports in the world. It is a symbol of the ruggedness and skill, dangerous to certain extent but very exciting from start to finish. The essence of this game lies in its artistic skill and aggressiveness.

In the present study, an attempt was made to find out the relationship matrix of psychomotor variables of hockey players of Mau Region.

METHODS: Ninety male hockey players from under 19 years were selected as subject for the study from Mau Region and Purposive sampling was used for collection of the data. The following variables were selected for the purpose of present study to assess and find out the

relationship between psychomotor ability from under 19 years. **Psychomotor Abilities:** Visual Perception, Static Balance Ability, Dynamic Balance Ability, Differentiation ability, Reaction Time and Kinesthetic Perception. **Criterion measures**: Balance-Static balance will be measure by STORK STAND TEST in seconds. Dynamic balance was measured by modified BASS BALANCE TEST score will be record in points. Differentiation Ability- Differentiation ability will be measured by BACKWARD BASKETBALL THROW TEST in points. Kinesthetic Perception: Kinesthetic Perception will be measured by KINESTHETIC OBSTACLE TEST in points. Reaction Time Reaction time will be measured by the NELSON HAND REACTION TIME TEST in seconds by using formula given by Nelson. Visual Perception Visual Perception will be measured by MULLER LYER VISUAL PERCEPTION APPARATUS in centimeter. Product moment correlation was used to determine the relationship between psychomotor abilities of Hockey Player of Mau Region.

RESULTS:

Table 1: **Mean and Standard Deviation of Selected Psychomotor Abilities and Anxiety of Male Hockey Players of Mau Region**

	VARIABLES	PURVANCHAL	
		MAU	
		Mean	**Std. Deviation**
1	Anxiety	29.70	5.83
2	Kinesthetic Perception	51.33	9.85
3	Static Balance Stroke Standing Test	28.97	18.08
4	Modified Bass Test of Dynamic Balance	27.25	8.85
5	Reaction Time	0.16	0.02
6	Visual Perception	0.57	0.34
7	Differentiation ability	12.13	1.73

The mean and standard deviation of Anxiety of Allahabad region is 29.70±5.83, Kinesthetic Perception is 51.33±9.85, Static Balance Stroke Standing Test is 28.97±18.08 ,Modified Bass Test of Dynamic Balance is 27.25±8.85, Reaction time is 0.16±0.02 , Visual Perception Test is 0.57±0.34, Differentiation ability test is 12.13±1.73.

Table 2: Correlation Matrix of Psychomotor Variables of Mau Region Hockey Players

VARIABLES	Anxiety	Kinesthetic Perception	Static Balance Stroke Standing Test	Modified Bass Test of Dynamic Balance	Reaction Time	Visual Perception	Differentiation ability
Anxiety	1						
Kinesthetic c	-.013	1					

Perception							
Static Balance Stroke Standing Test	-.125	.554**	1				
Modified Bass Test of Dynamic Balance	-.057	.000	-.018	1			
Reaction Time	.147	-.038	.114	-.087	1		
Visual Perception	-.147	-.006	.015	-.111	-.186	1	
Differentiation ability	-.046	-.154	-.056	-.003	-.210	.027	1

The above table reveals that in Kinesthetic perception, static balance stroke test, modified bass test, visual perception test and differentiation ability was negatively related to anxiety (r=-.013, -.125, -.057, -.147 and -.046). However, no significant relationship was found between KP,SBT, MBT, RT and anxiety. Reaction Time is related to anxiety but it is not significantly related (r=.147). The above table reveals that in modified bass test, visual perception test and differentiation ability was negatively related to Kinesthetic perception(r=-.038,-.006,-.154).However, no significant relationship was found between, Reaction Time, visual perception test, differentiation ability and Kinesthetic Perception. Static balance stroke test is related to Kinesthetic perception (r=.554**). The above table reveals that in modified bass test and differentiation ability was negatively related to, static balance stroke test (r=--.018,-.056).However, no significant relationship was found between modified bass test differentiation ability and static balance stroke test. Reaction Time and visual perception test is related to static balance stroke test but it is not significantly related (r=.114 and .015).

The above table reveals that in Reaction Time, visual perception test and differentiation ability was negatively related to modified bass test (r=-.087,-.111,-.003). However, no significant relationship was found between Reaction Time, visual perception test a differentiation ability and modified bass test. The above table reveals that in visual perception test and differentiation ability was negatively related to anxiety (r=-.186 and -.210). However, no significant relationship was found between visual perception test differentiation ability and Reaction Time . The above table reveals that in differentiation ability is related to visual perception test but it is not significantly related (r=.027).

Discussion of Findings

The present study reveals that a significant relationship was found in case of Static balance stroke test and Kinesthetic perception. Dmitri PoltavskI & David Biberdorf (2015) . The results demonstrated that 69% of variance in the goals made by forwards in 2011–2013 could be predicted by their faster reaction time to a visual stimulus, better visual memory, better visual discrimination and afaster ability to shift focus between near and far objects. Approximately 33% of variance in game points was significantly related to better discrimination among competing visual stimuli. In

addition, reaction time to a visual stimulus as well as stereoptic quickness significantly accounted for 24% of variance in the mean duration of the player's penalty time. This is one of the first studies to show that some of the visual skills that state-of-the-art generalised sports vision programmes are purported to target may indeed be important for hockey players' actual performance on the field. P. SenthilRajkumar,T. Radhakrishnan(2015) . The results of the study show that experimental group shows better improvement on static balance and dynamic balance when compared to control group. Rana and Rajpoot (2015) The objective of the study was to investigate the relationship of Coordinative Abilities to Playing Ability in Combative Sports. The level of significance was set at 0.05. There was a significant relationship of Balance Ability with the Judokas Playing Ability. Whereas insignificant relationship in case of Differentiation, Orientation, Reaction and Rhythm Coordinative Abilities with Judokas Playing Ability. There was a significant relationship of Balance and Differentiation Abilities with the Wrestlers Playing Ability, while there was no significant relationship in case of Orientation, Reaction and Rhythm Abilities with Wrestlers Playing Ability.Vincent Parnabas (2015) The result also showed that the exits of negative correlation between competitive state anxiety and sport performance among hockey players, (r = -0.67; p). Sport psychologists, sport counselors and coaches should use the present findings to recommend coping strategies to university and district level athletes that are appropriate for dealing with their athletes'

competitive state anxiety. Sardar Biswajit, Sardar Sanjit (July 2011) presented that Kinesthetic perception, speed of movement, Response time, Balance ability, Differentiation ability, Orientation ability, Reaction ability and Rhythmic ability has significant differences at various level of hockey players. National and State level hockey players were found to be superior as compared to District level hockey players in Kinesthetic perception, Response time, Speed of movement, Balance ability, Differentiation ability, and Orientation ability. Whereas, reaction ability and rhythmic ability have not found any differences among different level hockey players. Maja Mańkowska ,TatianaPoliszczuk ,DmytroPoliszczuk Monika Johne (2015) The analysis of the results obtained proves that the best-developed ability in participants is reaction time, while the other abilities show average development. Study participants were able to develop their response abilities to such high levels by means of practice. A correlation coefficient was found between motor time and tracking deviation (r=0.56), and between time anticipation and the number of correct responses to stimuli appearing in the left

(r=0.92) and right (r=0.88) field of vision. Athletes who achieved better results in time anticipation omitted fewer visual stimuli (r=0.7) in the peripheral field of vision. Statistically significant correlations were observed between movement anticipation and reaction time to stimuli in the central field of vision (r=0.58).Conclusions. Perception abilities have a significant

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effect on time anticipation. The range of one's field of vision does not determine the reaction time to a visual stimulus. Perception efficiency and divided attention, in conjunction with time and movement anticipation, create a complex of specific psychomotor abilities that is indispensable for achieving success in team sports

Thus, different authors showed that the psychomotor variables are inter related but in present study no significant relationship was found. This may be attributed to the fact that the age category of the children's were 19 years. However, if this study would have been done of different age category ie. 20 years and above, a significant relationship might have occurred.

Conclusions: Static balance stroke test is related to kinesthetic perception in hockey players of Mau Region.

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