

Relationship between Selected Psychomotor Abilities and Anxiety of 16 years Male Hockey Players of Varanasi Region

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Abstracts

Objective: To find out the Relationship between Selected Psychomotor abilities and Anxiety of 16 years Male Hockey Players of Varanasi Region. **Methods:** Sixty male hockey players from. under 16 years was selected as subject for the study from Varanasi Region and Purposive sampling was used for collection of the data. **Results:** Kinesthetic perception, modified bass test and visual perception test was negatively related to anxiety ($r=-.136$, $-.124$ and $-.209$). **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 elements exercise a great control and influence over performance in sports. Total fitness of the performance is of utmost importance in order to get optimal performance at the prestigious sports competitions at the international level. Fitness of the player has become a very complex but sought after proposition for the very obvious reasons. We see and find now-a-days that the winners and the runners-up are adjudged by the slightest difference of more fractions of a second. Fitness is a product of exercise and training. The perfect of harmonious integration of various psychomotor, physiological, emotion and social attributes account for the total fitness of an individual and forms the basis for maximal performance. All these components of total fitness are mutually interdependent, and are required in different proportion according to the type and nature of the activity for the sports being undertaken. Psychomotor fitness of an individual is a perfect blending of physical as well as motor fitness, and goes a long way in yielding the excellent outcomes. The nation's existing excellence in the international sports do attach great significant to the total fitness.

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.

Psychomotor variables act as the medium for the realization of cognitive and effective domains of learning and motor behavior. 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.

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

METHODS: Sixty male hockey players from. Under 16 years was selected as subject for the study from Varanasi 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 16 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 Varanasi Region.

RESULTS:

Table 1 Mean and Standard Deviation of Selected Psychomotor Abilities and Anxiety of Male Hockey Players of Varanasi Region

	VARIABLE	VARANASI	
		Mean	Std. Deviation
1	Anxiety	28.75	5.97
2	Kinesthetic Perception	48.65	11.98
3	Static Balance Stroke Standing Test	32.85	18.32
4	Modified Bass Test of Dynamic Balance	33.75	9.46
5	Reaction Time	0.16	0.02
6	Visual Perception	0.40	0.30
7	Differentiation ability	16.00	2.12

The mean and standard deviation of Anxiety of Varanasi region is 28.75 ± 5.97 , Kinesthetic Perception is 48.65 ± 11.98 , Static Balance Stroke Standing Test is 32.85 ± 18.32 ,

Modified Bass Test of Dynamic Balance is 33.75 ± 9.46 , Reaction time is 0.16 ± 0.02 , Visual Perception Test is 0.40 ± 0.30 , Differentiation ability test is 16.00 ± 2.12 .

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

	Anxiety	Kinesthetic Perception	Static Balance Stroke Standing Test	Modified Bass Test of Dynamic Balance	Reaction Time	Visual Perception	Differentiation ability
Anxiety	1						
Kinesthetic Perception	-.136	1					
Static Balance Stroke Standing Test	.013	-.094	1				
Modified Bass Test of Dynamic Balance	-.124	.146	.304*	1			
Reaction Time	.004	.153	-.140	.065	1		
Visual Perception	-.209	.175	-.034	.041	.165	1	
Differentiation ability	.032	.224	.220	.199	.228	-.027	1

The above table reveals that in Kinesthetic perception, modified bass test and visual perception test was negatively related to anxiety ($r = -.136, -.124$ and $-.209$). However, no significant relationship was found between kinesthetic perception, modified bass test visual perception test and anxiety. Static Balance Stroke Standing Test, Reaction Time and Differentiation ability is related to anxiety but it is not significantly related ($r = .013, .004$ and $.032$). The above table reveals that in Static Balance Stroke Standing Test was negatively related to Kinesthetic Perception ($r = -.094$). However, no significant relationship was found between Static Balance Stroke Standing Test and Kinesthetic Perception. Modified Bass Test of Dynamic Balance, Reaction Time, Visual Perception and Differentiation ability is related to Kinesthetic Perception but it is not significantly related ($r = .146, .153, .175$ and $.224$). The above table reveals that in Reaction Time and Visual Perception was negatively related to, static balance stroke test ($r = -.140$, and $-.034$). However, no significant relationship was found between Reaction Time and Visual Perception and static balance stroke test. Differentiation ability is related to static balance stroke test but it is not significantly related ($r = .220$). Modified Bass Test of Dynamic Balance is related to static balance stroke test ($r = .304^*$). The above table reveals that in Reaction Time,

Visual Perception and Differentiation ability is related to Modified Bass Test but it is not significantly related ($r=.065, .014, .199$). The above table reveals that in Visual Perception and Differentiation ability is related to Modified Bass Test but it is not significantly related ($r=.165, .228$). The above table reveals that in Differentiation ability was negatively related to Visual Perception ($r=-.027$). However, no significant relationship was found between Differentiation ability and Visual Perception.

Discussion of Findings

The present study reveals that a significant relationship was found in Modified Bass Test of Dynamic Balance is related to static balance stroke test References. 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 a faster 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. 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, Tatiana Poliszczuk, Dmytro Poliszczuk, Monika John (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 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. 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 exists 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. 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 more than 20 years. However, if this study would have been done of different age category ie. more than 20 years and above, a significant relationship might have occurred.

Conclusions: Modified Bass Test of Dynamic Balance is related to static balance stroke test

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