

Relationship between Selected Psychomotor Abilities and Anxiety of 19 Years Male Hockey Players of Sonbhadra 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 Sonbhadra Region. **Methods:** Sixty male hockey players from. Under 19 years was selected as subject for the study from Sonbhadra 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 ($r = -.054$ and $-.032$). **Conclusion:** Psychomotor abilities and anxiety are not related.

Key words: Psychomotor, abilities, anxiety.

INTRODUCTION

Field Hockey is considered to be an endurance event. Various skills in field Hockey demand display of specific strength and endurance. A definite degree of strength of arm muscle is required to do the basic skills like hitting, pushing, and scooping. Hockey requires a higher degree of running ability. The extension of the Hockey field is so large that the players are able to run in the whole field without fatigue and compete with their opponents. The quality of muscular endurance and cardio respiratory endurance is highly required for a Hockey player to improve his performance. There are trainings like circuit and weight training to develop and improve strength and interval and resistance training to improve the speed. Circuit training has proved to be a very effective method for improving strength endurance (Don et al, 1983).

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.

Psychology of an individual is one of the very significant factors. The mental capacity of any individual depends upon many factors like heredity, growth and development, environment etc. A child's psyche is affected by his family atmosphere, peer group, environment of school etc.

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.

Psychology as a behavioral science had made its contribution in this regard, it has helped the coaches to coach more efficiently and enhance sports man's performance more proficiently. Psychology is also concerned with the total wellbeing and personal adjustment to those involved in sports. Psychologists are concerned with behavior understanding explaining and ever predicting. Sports psychology is primarily interested in the analysis of behavior of sportsmen,

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Researchers are afforded ample opportunities to observe, describe and explain the various psychological factors that influence diverse aspects of sports and physical activity. Psychological variables like Anxiety, Aggression and Motivation etc., determine the performance of individual. Sports psychology supplies psychology theories and concept to be accepted by sports psychologists for psychological assessments techniques and intervention strategies in an effort to help individuals to achieve their optimal performance. While sports psychology is concerned with analyzing human behavior in various types of sports setting it focuses on the mental aspects of performance. Josiver (1986) states that psychology can help the sportsmen in the activity of sports excellence. Role of psychology in selection, training, training materials and rehabilitations would definitely help in achieving sports excellence. The emphasis has been laid on pointing out that psychology and sports can be optimally obtained by developing appropriate strategies.

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

METHODS: Sixty male hockey players from under 19 years were selected as subject for the study from Sonbhadra 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 Sonbhadra Region.

RESULTS:

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

Sonbhadra			
	VARIABLES	Mean	Std. Deviation
1	Anxiety	28.13	6.50
2	Kinesthetic Perception	50.38	11.62
3	Static Balance Stroke Standing Test	27.31	16.15
4	Modified Bass Test of Dynamic Balance	26.92	9.70
5	Reaction Time	0.15	0.02
6	Visual Perception	0.40	0.33

7	Differentiation ability	10.63	3.12
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The mean and standard deviation of Anxiety of Sonbhadra region is 28.13 ± 6.50 , Kinesthetic Perception is 50.38 ± 11.62 , Static Balance Stroke Standing Test is 27.31 ± 16.15 , Modified Bass Test of Dynamic Balance is 26.92 ± 9.70 , Reaction time is 0.15 ± 0.02 , Visual Perception Test is 0.40 ± 0.33 , Differentiation ability test is 10.63 ± 3.12 .

Table 2: Correlation Matrix of Psychomotor Variables of Sonbhadra 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 Perception	.210	1					
Static Balance Stroke Standing Test	.065	.110	1				
Modified Bass Test of Dynamic Balance	.103	-.078	-.106	1			
Reaction Time	.115	-.035	-.050	-.221	1		
Visual Perception	-.054	.026	-.142	.152	-.249	1	
Differentiation ability	-.032	.066	-.097	-.027	-.104	-.224	1

The above table reveals that in Visual Perception and Differentiation ability was negatively related to anxiety ($r = -.054, -.032$). However, no significant relationship was found, Visual Perception and Differentiation ability and anxiety. Kinesthetic Perception, Static Balance Stroke Standing Test, Modified Bass Test of Dynamic Balance and Reaction Time is related to anxiety but it is not significantly related ($r = .210, .065, .103$ and $.115$). The above table reveals

that in Modified Bass Test of Dynamic Balance and Reaction Time was negatively related to Kinesthetic perception ($r=-.078,-.035$). However, no significant relationship was found Modified Bass Test of Dynamic Balance and Reaction Time and Kinesthetic perception. Static Balance Stroke Standing Test, Visual Perception and Differentiation ability is related to Kinesthetic Perception, but it is not significantly related ($r=.110,.026$, and $.066$). The above table reveals that in Reaction Time and Differentiation ability was negatively related to Modified Bass Test of Dynamic Balance ($r=-.221$ and $-.027$). However, no significant relationship was found, Reaction Time and Differentiation ability and Modified Bass Test of Dynamic Balance. Visual Perception is related to Modified Bass Test of Dynamic Balance but it is not significantly related ($r=.152$). The above table reveals that in Visual Perception and Differentiation ability was negatively related to Reaction Time ($r=-.249,-.104$). However, no significant relationship was found, Visual Perception and Differentiation ability and Reaction Time. The above table reveals that in Differentiation ability was negatively related to Visual Perception ($r=-.224$). However, no significant relationship was found, Differentiation ability and Visual Perception.

Discussion of Findings

The present study reveals that a significant relationship was found in case of Modified Bass Test of Dynamic Balance test and Reaction Time is related to Kinesthetic perception. 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. M. Ramajayam (2017) .The results show that there is no significant difference among the inter collegiate men Hockey players of finger dexterity and significant difference on reaction time and agility. Dr. Manoj Singh Rana, Dr. Yajuvendra Singh 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. 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. Rajni Dhingra et al; (2010) .The results reveal that on the whole the academic performance was significantly correlated with three perceptual abilities — visual,

auditory and kinesthetic. When considered separately, reading and spelling both were significantly associated not only with one another but also the three already mentioned perceptual areas. On the other hand, mathematic was found to be significantly correlated with only auditory and visual perception. (Keywords: Visual Perception, Auditory Perception, Kinesthetic Perception, Tactile Perception, Academic Performance, Correlation) Verma K.K. and Kumar J. (2006). The result of the study shows that significant was found between the Kabaddi players of two different levels in reaction ability. Orientation ability. Balance ability, and rhythmic ability. No significant difference was found among the Kabaddi players of levels in the relation to Differentiation ability at 0.05level. In co-coordinative abilities i.e. reaction ability, Orientation ability, ability and rhythmic ability the sequence of performance in all the abilities was juniors > Sub-Juniors.

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 i.e. 22 years and above, a significant relationship might have occurred.

Conclusions: Modified Bass Test of Dynamic Balance test and Reaction Time is related to Kinesthetic perception in hockey players of Sonbhadra Region.

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