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ORIGINAL ARTICLE

EFFECT OF BINOCULAR DEPTH PERCEPTION UPON DRIBBLING SKILLS OFFEMALE BASKETBALL PLAYERS

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Abstract:

In the present study dribbling skills of female basketball players was analysed in the context of binocular depth perception.100 female intercollegiate basketball players (Ave. age = 22.12 yrs.) were selected as sample for the present study. To assess dribbling skills of selected female basketball players, Johnson Basketball Dribble Test was used. Depth perception of the selected subjects was recorded by a specially designed depth perception apparatus. Results reveal that Dribbling skills of female basketball players exhibiting superior binocular depth perception was found to be significantly better as compared to dribbling skills of female basketball players with average and inferior binocular depth perception. It was concluded that binocular depth perception has a significant impact as far as dribbling skills in basketball is concerned.

KEYWORDS:

female basketball players , Dribbling Skills , Binocular Depth .

INTRODUCTION

Visual skills is a combination of multifaceted factors and it includes hand eye coordination, depth perception, peripheral vision etc. These visual skills are important in sports performance but it depends upon the nature of that particular game. In basketball, the basic skills are considered to be throwing, passing, dribbling and shooting respectively. All these skills requires a good judgment of distance and depth of an object. This is where depth perception can be useful. So far researchers like Miller and Barlett (1993), Liu (1999), Dongfeng et al. (2003), Quintana et al. (2007) have conducted studies to explore the role of perceptual abilities in basketball but so far impact of binocular depth perception i.e. judging depth from both eyes have remained unexplored upon dribbling skills of basketball players. Hence, to fill this void, the present study is planned.

HYPOTHESIS

It was hypothesized that dribbling skills of female basketball players with superior binocular depth perception will be significantly better as compared to female basketball players with average and inferior binocular depth perception.

METHODOLOGY :-

The following methodological steps were taken in order to conduct the present study.

Sample :-

For present study, 100 female intercollegiate basketball players (Ave age = 22.12 yrs.) were selected as sample. The selection of subjects was done from Inter-collegiate tournaments held in the State

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of Chhattisgarh India. The selection of sample was based on convenience sampling technique.

Tools:

Johnson Basketball Dribbling Test :

To assess dribbling skills of selected female basketball players, Johnson Basketball Dribbling Test was used. This test is highly reliable and valid. The direction of scoring for this test is "higher the score better is the ability".

Depth Perception :

Depth perception of the selected subjects was recorded by a specially designed depth perception apparatus.In this test the direction is scoring is "higher the deviation, lower the binocular depth perception".

Procedure:

Johnson basketball dribbling test was administered to each subject as per their availability and convenience. Similarly depth perception of selected subjects was recorded.

To divide cases into superior, average and inferior binocular depth perception categories, Q1 and Q3 statistical technique was used. Subjects whose depth perception scores lies below Q1 was assigned to superior depth perception category, subjects whose scores lies above Q3 was assigned to inferior depth perception category while scores on depth perception lying between Q1 and Q3 was assigned to average depth perception category.

To find out the effect of binocular depth perception on dribbling skills of selected female basketball players, 't' test was used. Results depicted in table no. 1.

ANALYSIS OF DATA

Table 1
Comparison of dribbling skills between female basketball players on the basis of their binocular depth perception

	Throwing Accuracy		't'
Categories of Binocular Depth perception	Mean	S.D.	
Superior (N=26)	25.07	2.27	4.76**
Inferior (N=27)	21.40	3.22	
Superior (N=26)	25.07	2.27	4.02**
Average (N=47)	22.14	3.29	
Inferior (N=27)	21.40	3.22	0.93
Average (N=47)	22.14	3.29	

** Significant at .01 level

Entries reported in table 1 indicate that thedribbling skills of female basketball players exhibiting superior binocular depth perception (M=25.07) was found to be significantly better as compared to female basketball players with inferior (M=21.40) and average binocular depth perception (M=22.14) respectively. No statistically significant difference was observed in dribbling skills of female basketball players belonging to inferior and average level of binocular depth perception. The reported t=0.93 confirms it statistically.($t=1.99, p<.05$).

RESULTS

1.Female basketball players with superior binocular depth perception showed significantly superior dribbling skills as compared to female basketball players with average and inferior level of binocular depth perception.

2.Comparatively, the dribbling skills of female basketball players constituting two groups i.e. average and inferior binocular depth perception, did not differ with each statistically.

DISCUSSION

Constant motion is associated with basketball in which dynamic as well as static acuity is also required. Hence spatial localization i.e. own position in relation to other objects is equally important. In dribbling players are moving constantly, hence a player with good binocular depth perception knows his position relative to target in much efficient manner as compared to a basketball player with inferior binocular depth perception. So the results of the present study are consistent with theory of spatial localization.

CONCLUSION

On the basis of results, it may be concluded that binocular depth perception do make a difference in dribbling skills of a basketball player.

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