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Effect of variation in day time and session on soccer performance

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Abstract

The objective of present study was to explore the effect of variation in day time and session on soccer performance. To achieve this objective, this study was conducted on state and university level male soccer players of Haryana. 18-25 years of age group. A total forty (N=40) soccer players were selected randomly from four districts of Haryana namely Hisar, Fatehabad, Sirsaand and Jind. To check the soccer playing ability of players, Mc Donald Soccer Test was used. The Soccer playing ability was recorded in total point scored in 30 seconds by the subject with the help of Mc Donald soccer Test. In order to find out the effect of day time and seasonal variations on soccer performance the two way analysis of variance (ANOVA) was employed. When 'F - Test' value was found significant then Scheffe's Post-Hoc test was applied. Data was analyzed with the help of Statistical Package for the Social Sciences (SPSS) 17.0. The level of significance was set at 0.05 percent ($p < 0.5$).

Keywords: variation, session, soccer performance

Introduction

For centuries, man has been looking at the universe and trying to unrevealed its mysteries and understand it's working. The execution of competitor is conceivable due to synchronize and coordinated working of some powerful procedure of the body which is physiological, mental, biochemical and psycho-physiological are in nature. Alongside these, the natural conditions, for example, climate, atmosphere, elevation, temperature, seasons and so on may likewise have their impact on games execution of a person. Change in the every day mood of the useful limit of various frameworks which are synchronized to a 24 hour day, watch two impossible to miss angles. One of them is the prime ward varieties in the levels of physiological process, communicated as circadian range or circadian plentifulness. Sports execution that happens a few hours previously or after the circadian pinnacle 'window' will be conceivably exposed to not exactly ideal execution.

Method and procedure

To achieve this objective of present study, research was conducted on state and university level male soccer players of Haryana of 18-25 years of age group. A total forty (N=40) soccer players were selected randomly from four districts of Haryana namely Hisar, Fatehabad, Sirsaand and Jind. To check the soccer playing ability of players, Mc Donald Soccer Test was used. The Soccer playing ability was recorded in total point scored in 30 seconds by the subject with the help of Mc Donald soccer Test. In order to find out the effect of day time and seasonal variations on soccer performance the two way analysis of variance (ANOVA) was employed. When 'F - Test' value was found significant then Scheffe's Post-Hoc test was applied. Data was analyzed with the help of Statistical Package for the Social Sciences (SPSS) 17.0. The level of significance was set at 0.05 percent ($p < 0.5$).

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Results

Table 1: Means and SD of playing ability of soccer players at different day time and season

Season	Diurnal	Mean	Std. Deviation	N
Winter	Morning	27.53	1.655	40
	Evening	27.43	1.654	40
	Total	27.34	1.643	80
Summer	Morning	28.43	1.645	40
	Evening	27.33	1.765	40
	Total	28.34	1.654	80
Total	Morning	27.45	1.654	80
	Evening	27.56	1.646	80
	Total	27.65	1.665	160

Table 1 shows that mean value of playing ability of soccer players in the evening and morning during winter was 27.53 and 27.43 seconds respectively whereas the mean value of playing ability of soccer players in the evening and morning during summer was 28.43 and 27.33 respectively. The total means value of playing ability of soccer players in the evening and morning during both season (winter and summer) was 27.45 and 27.56 respectively.

The analysis for normality, examining regular Skewness and the Shapiro-Wilks analysis indicated the data were statistically normal. The analysis for homogeneity of variance was not significant, *Levene F* (3, 156) = .298, *p* = .791, demonstrating that this statement underlying the application of the two way analysis of variance was met. Significant level of 0.05 was set for the early analyses. The results of table 1 are also illustrated in figure: 1.

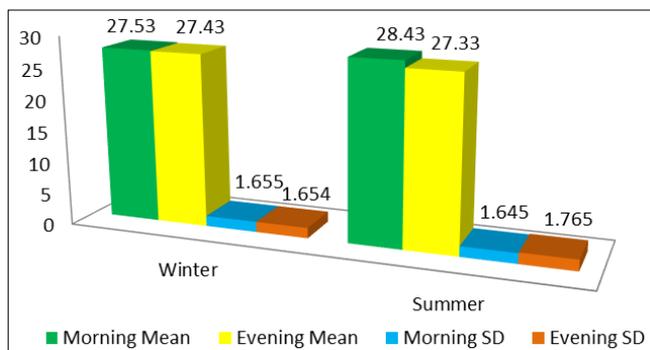


Fig 1: Means and SD of playing ability of soccer players at different day time and season

Table 2: Two-way analysis of variance for playing ability of soccer players at different day time and season

Source	Type III Sum of Squares	DF	Mean Square	F	Sig.
Season	.764	1	.764	.322	.592
Diurnal	.102	1	.102	.134	.986
Season * Diurnal	.302	1	.302	.101	.856
Error	1343.453	156	4.134		
Total	301234.334	160			
Corrected Total	1345.546	159			

The results for the two way analysis of variance indicated a not significant main effect for time of day, *F* (1, 156) = 0.322, *p* > .05 and a not significant main effect for Seasonal variations, *F* (1, 156) = 0.322, *p* > .05. Furthermore, the results shows a not significant interaction between time of day and Seasonal variations, *F* (1, 156) = 0.101, *p* > .05 (*glimpse* Table 2), demonstrating that there is no interaction effect found between time of day and Seasonal variations.

Conclusion

The study of data pertaining to the impact of day time variations and season variations on soccer playing ability reveals that soccer performances were not significantly affected when measured with the Mc Donald Soccer skill test in both time of day and season variation.

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