

UNIVERSITI TEKNOLOGI MARA

**HIGH INTENSITY RUNNING AMONG MEN'S ELITE
FIELD HOCKEY BASED ON PLAYING POSITION**

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TABLE OF CONTENT

	Page
ACKNOWLEDGEMENT	ii
LETTER OF SUBMISSION	iii
DECLARATION	iv
ABSTRACT	vii
CHAPTER 1	INTRODUCTION
1.1	Background of study 1
1.2	Problem statement 3
1.3	Objectives of study 5
1.4	Hypotheses 6
1.5	Conceptual Framework 7
1.6	Delimitation 8
1.7	Limitation 8
1.8	Assumptions 9
1.9	Significance of Study 9
1.10	Operational terms 10
CHAPTER 2	LITERATURE REVIEW
2.1	Introduction 11
2.2	The Physical Demand of hockey 11
2.3	Positional Differences 14
2.4	Hockey Game Format 15
2.5	Performance Analysis 16
	2.5.1. Cinematographic Tracking 17
	2.5.2. Automated tracking 19
2.6	Reliability 20

CHAPTER 3

METHODOLOGY

3.1	Introduction	22
3.2	Research Design	22
3.3	Sampling Technique	22
3.4	Threat to internal validity	23
3.5	Instrumentation	23
	3.5.1 Reliability and Validity of the SPI	
	Pro GPS device	24
3.6	GPS Speed Zone	25
3.7	Heart rate	26
3.8	Data collection Procedure	26
3.9	Statistical analysis	28

CHAPTER 4

RESULTS AND FINDINGS

4.1	Introduction	29
4.2	Statistical assumptions	29
	4.2.1 Normal Distribution	29
	4.2.2 Homogeneity of Variance	30
4.3	Descriptive Analysis of Demographic Data	31
4.4	Descriptive Statistic of the HIR Frequency, HIR Distance Covered, HIR Frequency Below 10m and Top Speed Achieved	32
4.5	Test of One Way ANOVA	36

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Abstract

The purpose of this study was to investigate the high intensity running demands of elite men's field hockey using modern tracking devices which is GPS. Eighteen (N=18) elite male players (age: 27.88 ± 1.99 years) participated in 6 matches, during which physical output of playing were quantified using GPS units and heart rate monitors. The mean of HIR frequency for (defender: 92.11 ± 17.36 , midfielder 82.66 ± 21.15 , striker: 96.94 ± 12.66), HIR distance covered was (defender: 2116.49 ± 351.10 , midfielder: 2113.13 ± 614.78 , striker: 2351.56 ± 297.29), HIR below 10m was (defender: 25.52 ± 5.64 , midfielder: 21.88 ± 8.41 , striker: 26.11 ± 5.01) and top speed was (defender: 27.75 ± 2.52 , midfielder: 29.36 ± 2.12 , striker: 29.38 ± 2.71). All measured variable not show significance to HIR distance covered (0.703, $p < 0.05$), HIR below 10m frequency (0.505, $p < 0.05$), HIR frequency (0.647, $p < 0.05$) and top speed achieved (0.468, $p < 0.05$). These results suggest that modern day elite field hockey is physically demanding team sport especially in high intensity running to all players of all playing positions with the exception of the goalkeeper. Quantification of the demands and outputs of the players at competitive level provides useful framework on which to develop conditioning practices. The differences in high intensity running observed for some position suggests position-specific conditioning is required at the elite level.