UNIVERSITI TEKNOLOGI MARA

EFFECT OF POST ACTIVATION POTENTIATION ON MUSCLE POWER AND MUSCLE STRENGTH AMONG FOOTBALL PLAYER U 17

NURUL HIDAYAH BINTI SHOODI

Research Project Report submitted in partial fulfilment of the requirements for the Degree of

Bachelor of Sports Science (Hons.)

Faculty of Sports Science and Recreation

January 2019

TABLE OF CONTENT

			Page
ACK	NOWLEDGEMENT		i
TAB	LE OF CONTENTS		ii
DEC	LARATION		V
LET	TER OF TRANSMITTAL		vi
AFF	IRMATION		vii
LIST	T OF TABLES		vii
LIST	OF FIGURE		ix
LIST	OF SYMBOLS AND ABBREVIATIONS		X
ABS	TRACT		xi
CHA	APTER		
1	INTRODUCTION		
	1.1 Problem statement	3	
	1.2 Research objective	4	
	1.3 Research hypothesis	4	
	1.4 Definition of terms	4	
	1.4.1 Post Activation Potentiation (PAP)	4	
	1.4.2 Power	4	
	1.4.3 Strength	4	
	1.5 Significance of the study	5	
	1.6 Limitations of study	5	
	1.7 Delimitations of study	5	

2 LITERATURE REVIEW

2.1 Football

3

	2.2 Malaysia's Professional Football League	7		
	2.3 Creating skilful football player	8		
	2.3.1 Basic requirements for creating skilful football Players	8		
	2.4 Sport performance	11		
	2.5 Relationship between strength and power with	12		
	Post Activation Potentiation (PAP)			
	METHODOLOGY			
	3.1 Research design	13		
	3.2 Sampling	14		
	3.3 Testing	14		
	3.3.1 Power	14		
	3.3.2 Strength	15		
	3.5 Intervention	15		
	3.6 Statistical analysis	16		
	3.6.1 Parametric Testing	16		
	3.6.2 Non-Parametric	16		
RESULTS				
	4.1 Descriptive of Subjects	17		

	4.2 Comparison of power following PAP	18
	4.3 Comparison of strength following PAP	19
5	DISCUSSION	
	5.1 The effect of PAP on muscle power	21
	5.2 The effect of PAP on muscle strength	22
6	CONCLUSION AND RECOMMENDATION	
	6.1 Conclusion	24
	6.2 Recommendation	25
REFERENCES		26
APPENDICES		31

ABSTRACT

This study was conducted in order to investigate the effect of Post Activation Potentiation in muscle power and muscle strength among football player age U17. Twenty three football players performed in this study. These tests are pre-experimental design. Each subject followed the intervention for 4 weeks. The test is Standing Long Jump (SLJ) for measuring muscle power and 3RM Back Squat (BS) for measuring muscle strength. Subject need to perform pre-test and post-test in this study. Paired Sample T-Test was used to see the significant of SLJ. However, 3RN BS test use Wilcoxon Signed Rank test to see the significant. Statiscal analysis showed both power and strength were significant (p<0.05) after 4 weeks of PAP training. Therefore, PAP training seem giving an improvement to power and strength for football player.

Keywords: Post Activation Potentiation, Strength, Power, Football player, Effect