



UNIVERSITI TEKNOLOGI MARA

**EFFECT OF 6-WEEK CORE STRENGTH AND ENDURANCE
TRAINING ON AGILITY, POWER AND SPEED OF FEMALE
VOLLEYBALL ATHLETES**

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ABSTRACT

The purpose of this study was to investigate the effect of core strength and endurance training on agility, power and speed of female volleyball athletes. Sample size for this study was 10 subjects (N=10) of age between 18-25 years old, were randomly assign into two groups which is core strength and core endurance group. Both groups will participate of six weeks of intervention. The result from this study show there was no a significant difference within group for pre-test and post-test. CST group show there is no significant difference on agility, power and speed ($p>0.05$), while result for CET group also no significant difference on agility power and speed ($p>0.05$). Result effect between group CST and CET on agility, power and speed also no significant difference comparing between groups ($p>0.05$). The percentage of both group shows improvement on agility and speed but there are no significant difference shows from the results. Through this findings, it shows that CST and CET on agility and speed has positive improvement on their performance but the result state that no significant difference because of the limitation of the subjects.

Key words: Core strength. Core endurance, Agility, Power, Speed

CHAPTER ONE

INTRODUCTION

1.1 Background of study

Volleyball is a sports that been played by 6 player per team. The game is played either indoor or outdoor based on the facility that been provided, where two team need to compete to win the game. Volleyball is been played at the court that diameter 18 meter long, which been divided into two side which 9 meters for each side and the wide of the court is 9 meters. This game got two category which the different is based on the height of the net. The height for men category is 2.43m height, while for women category the net height is 2.24m. Today as we can see, this sport is popular because of the phenomenal growth and popularity of the sport. The volleyball game is an arguably one of the most sports that popular among athlete around the world. The important component are technical and tactical skills, muscular strength and power in volleyball. Besides that, all the component are the main factors that contribute and become an advantage for the athlete participation to be successful during competitions. To improve the volleyball performance, players must plan the specific volleyball training very in detail. The training for volleyball must include the resistance, sprint and agility training. This is because, according to the past study has investigate the effectiveness on the resistance, sprint and agility training in volleyball.

Based on the past study, core is define as the core that suffer for the firmness is based on the anatomical segments. According to the Richardson

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Volleyball is a sports that been played by six player per team. The players use their hands for digging skill to play the game and using their hand to spike or blocking over a high net. They will attempt to achieve their objective by put the ball to opponent court playing area for scoring a point. To prevent from the opponent gain their point, a player need to dig the up to the air or passing toward other teammate before it fall and touches the ground, the teammate should volley it back across the net or dig up the ball to a third teammate who will volley to the opponent court. According to the rules and regulations the ball touch that been allowed for each team during game are only three touch before it must be returned over the net.

For volleyball skills and techniques are most important needed in the game of volleyball in order to become expert in this game. The skill that the most players must learn which is basic in volleyball games are serving, passing, setting and spiking. The focus in volleyball is on the spiking technique and the successive development the skill to empower solid attacking to reinforce the attack phase during the game. The sequence of speed and strength to drive the ball is the component for spiking skill. From this technique, the player can get an advantage by taking the opponent by surprise. The spikers need to accumulate the amount of force as well as the advantage of height to spike the